University of California at Santa Barbara

Ellwood Marine Terminal Demolition and Restoration Project

Draft
Initial Study and Mitigated Negative Declaration

May, 2023

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Prepared By

University of California, Santa Barbara
Office of Campus Planning and Design
Santa Barbara, California 93106-1030

May, 2023

UNIVERSITY OF CALIFORNIA at SANTA BARBARA

ELLWOOD MARINE TERMINAL DEMOLITION AND RESTORATION PROJECT

INITIAL STUDY and MITIGATED NEGATIVE DECLARATION

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1.0 INTRODUCTION

This Initial Study (IS) and proposed Mitigated Negative Declaration (MND) has been prepared for the Ellwood Marine Terminal Demolition and Restoration Project (the "Project") in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code Section 21000 et. seq. and California Code of Regulations Title 14, Chapter 3 Sections 15000–15387, respectively).

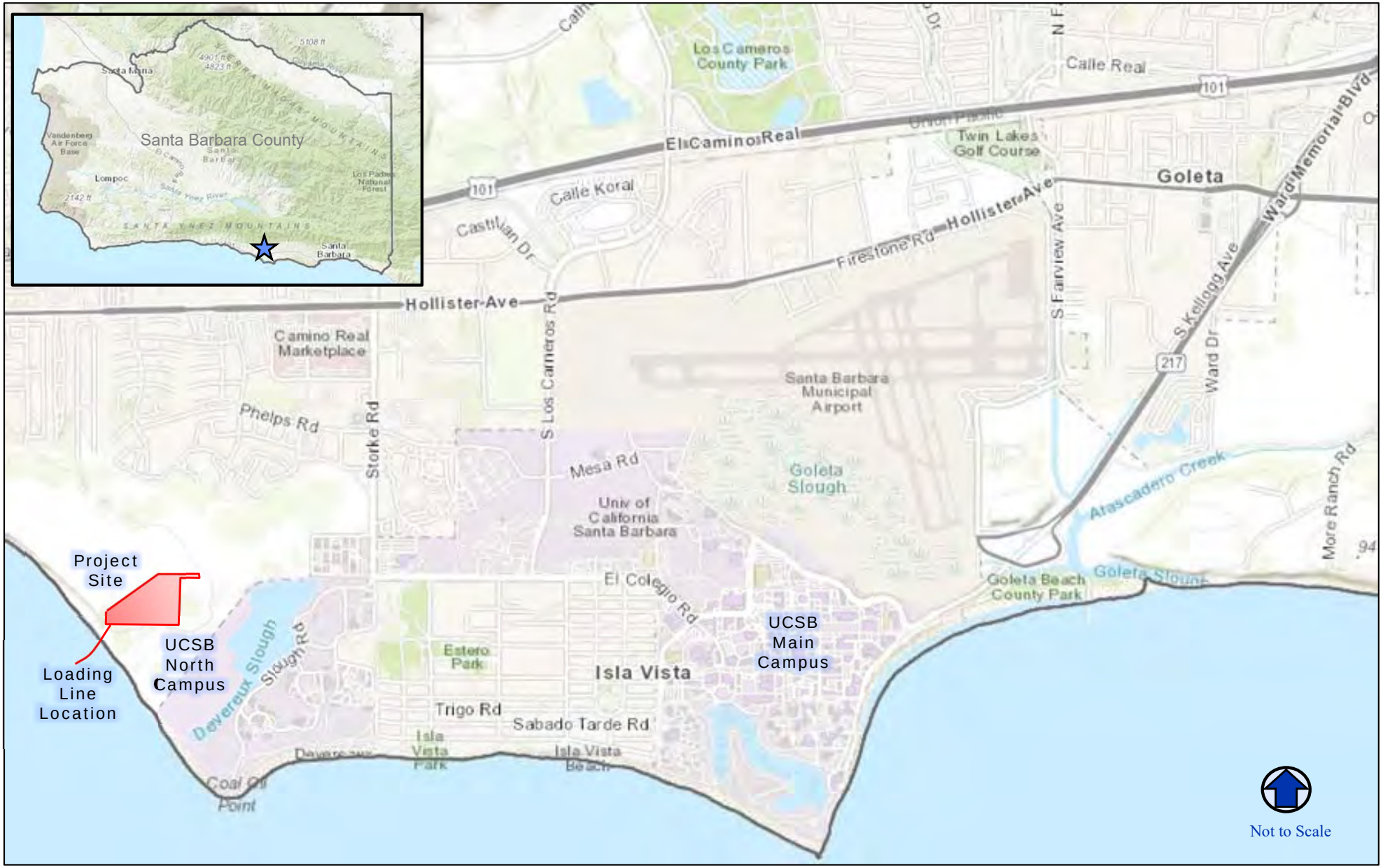
1.1 PROJECT OVERVIEW

The Project proposes to demolish and remove existing oil storage tanks and other onshore structures associated with the former operation of the Ellwood Marine Terminal (EMT) oil and gas facilities located on the University of California at Santa Barbara (UCSB) North Campus (Figure 1.1-1). The Project also proposes to remediate on-site soil contamination to applicable regulatory standards that resulted from the operation of the oil storage facilities, and restore the project site to establish new wetlands and other native habitats. The total site area is approximately 17.75 acres. The 17.54- acre EMT lease project site is generally surrounded by open space areas located on the southwestern portion of the North Campus. The 0.23-acre loading line easement is through the Coal Oil Point Reserve (COPR) and offshore.

The former operation of the EMT included the use of an onshore and offshore loading line that extends 2,665 feet to a former marine barge mooring station. The portion of the loading line located on the beach and offshore is under the jurisdiction of the California State Lands Commission (CSLC). The 10-inch-diameter loading line section under the beach to the offshore pipeline-end manifold, six seven-foot by 10-foot diameter mooring buoys, a 30-inch diameter sphere hose buoy, and a spar pipeline marker would be removed as part of the proposed Project and ultimate abandonment of the offshore portion of the existing loading line.

1.2 PROJECT INFORMATION

Project Title:	Ellwood Marine Terminal Demolition and Restoration Project
Lead Agency Name and Address:	The Regents of the University of California 1111 Franklin Street Oakland, CA 94607
Contact Person:	Ms. Shari Hammond, (805) 893-3796



Base Map: Data Basin.org

University of California, Santa Barbara

Ellwood Marine Terminal Demolition and Restoration Project

Figure 1.1-1

Ellwood Marine Terminal Project Site Location

Project Location:	The Project site is located on the North Campus of UC Santa Barbara
Project Sponsor:	University of California, Santa Barbara Santa Barbara, CA 93106-2030
Custodian of Administrative Record	University of California, Santa Barbara Office of Campus Planning and Design

1.3 PROJECT BACKGROUND

The EMT facility was used for storage and transport of crude oil from 1929 to 2012. When UCSB acquired the 174-acre North Campus property in 1994, the EMT facility was owned and operated by Venoco, Inc. After the University's acquisition of North Campus property, the onshore portion of the Venoco facility (the proposed Project site) operated under a lease agreement with UCSB, and that lease expired in 2016. In May 2017, Venoco filed for bankruptcy and discontinued all decommissioning efforts at the then idled EMT facility. Through a 2021 negotiated settlement with the University, ExxonMobil, a prior owner of the EMT, agreed to investigate any contamination in the leasehold area (the project site), remediate any contamination, and remove all improvements.

Former operations of the EMT were related to the operation of Platform Holly, which is located in State waters off the coast of Isla Vista. The oil platform, produced oil and shipped it through an offshore pipeline to the Ellwood Onshore Facility (EOF), located approximately two miles northwest of the EMT. Prior to 2012, the Line 96 pipeline transported crude oil from the EOF to EMT's storage tanks. From the storage tanks, oil was delivered offshore to the former barge mooring station via a loading line that runs 2,665 feet offshore from the EMT. Oil transported to the mooring station was transported out of the County by a marine barge. In January of 2012, Line 96 was connected to the Plains All American Pipeline at Las Flores Canyon and as a result of this new route, crude oil was redirected and transported from the EOF to Line 901, thereby eliminating the need for storing crude oil at the EMT and the use of marine barges.

After the Plains All American Pipeline ruptured in 2015, operations at Platform Holly were shut down and operations at the EMT were idled. Decommissioning of the EOF-EMT Line 96 segment was completed in 2017. From November 2020 through January 2021, the aboveground storage tanks and all pipelines within EMT were cleaned to remove the residual crude oil and sludge, and the waste was disposed. The EOF is now scheduled to be shut down and Platform Holly's wells abandoned as required by the CLSC. .

The proposed project site and existing equipment located at the site is shown on Figure 1.3-1.

Source: Rincon, 2019

University of California, Santa Barbara

Ellwood Marine Terminal Demolition and Restoration Project

Figure 1.3-1

Project Site and Equipment

1.4 ENVIRONMENTAL SETTING

1.4.1 Regional Setting

The UCSB campus is located in an unincorporated area of Santa Barbara County, near the City of Goleta and the community of Isla Vista, and approximately 10 miles west of the City of Santa Barbara. This general area is referred to as the South Coast region of the County and occupies a coastal plain about three miles wide between the Pacific Ocean and the foothills of the Santa Ynez Mountains.

The offshore Project site is located south of and adjacent to the UCSB North Campus. Marine habitats within the Project area include a diversity of intertidal, benthic, and open water habitats. This area is also known for fossil fuel resources. A major commercial shipping channel runs south of the Project area, and both commercial and recreational boating activity is common. Although the Project area is not located within federal or State Marine Protected Areas, it is adjacent to the Channel Island National Marine Sanctuary, within the Campus Point Marine Conservation Area, and east of the Naples State Marine Conservation Area.

1.4.2 Project Site and Surrounding Land Uses

EMT Project Site. The UCSB campus is comprised of four areas known as the Main Campus, Storke Campus, West Campus, and North Campus. The Ellwood Marine Terminal site is located on the southwestern portion of the North Campus. The 238-acre North Campus is located west of Storke Road, south of a residential neighborhood in the City of Goleta, and north of the UCSB West Campus. Land uses on the North Campus are mostly open space with some student and faculty housing. Housing projects on the North Campus include the 151-unit Sierra Madre student housing project, 250-unit West Campus Apartments, and the 154-unit Ocean Walk faculty housing project.

The onshore portion of the existing oil loading line that extends between the EMT site and the former marine barge mooring station is located south of the EMT on the UCSB Coal Oil Point Reserve (COPR). The COPR covers 165 acres of coastal habitat on the UCSB West Campus and protects a wide variety of coastal and estuarine habitats. COPR is a part of the University of California Natural Reserve System.

Offshore Loading Line. The offshore project area is located within the larger biogeographic zone known as the Southern California Bight (SCB), which encompasses approximately 22,000 square miles with boundaries that span from Point Conception, California, in the north to Cabo Colnett, Baja California, in the south. The intertidal zone within the Project site consists of sandy beaches. The intertidal zone is a dynamic environment characterized in part by daily tidal fluctuations and wave forces. The majority of the offshore marine terminal components are located in areas with soft substrate habitat. Areas that support hard bottom habitat and kelp is located to the southeast of the existing loading pipeline.

Surrounding Land Uses. Land uses located near the EMT Project site are described below.

North. The UCSB "South Parcel," which is part of the North Campus, is north of and adjacent to the project site. UCSB's Cheadle Center for Biodiversity and Ecological Restoration (Cheadle Center) is currently restoring native habitats on this open space area in conjunction with the North Campus Open Space Restoration Project, which includes the former Ocean Meadows Golf Course. This 136-acre area is being restored to create wetland and associated upland habitats. The UCSB Ocean Walk Faculty Housing project is approximately 1,700 feet north of the EMT project site, and residential areas in the City of Goleta are located north of the UCSB North Campus.

South. The UCSB West Campus, COPR, and the Pacific Ocean are located south of the EMT project site.

East. The Devereux Slough is located on the UCSB West Campus, approximately 1,300 feet east of the EMT project site. The Slough is part of COPR, which protects a wide variety of shoreline and estuarine habitats. The Devereux Advanced Behavioral Health center is located on the UCSB West Campus approximately 2,000 feet east of the EMT project site. The center is run by a private organization and provides services for people with emotional, behavioral, and/or cognitive differences. Other land uses east of the project site on the West Campus include the West Campus Housing project, which is approximately 3,000 feet east of the EMT project site; and the Orfalea Family Children's Center, which is also approximately 3,000 feet east of the EMT site. The community of Isla Vista and the Isla Vista Elementary School are located east of and adjacent to the West Campus, approximately 3,700 feet from the EMT project site.

West. Undeveloped open space property in the City of Goleta is adjacent to the EMT project site to the west. The open space area to the west includes the Sperling Reserve on the Ellwood Mesa, which is designated as "Open Space" by the City.

1.5 2010 LONG RANGE DEVELOPMENT PLAN

Land use planning requirements for the UCSB campus are included in the 2010 Long Range Development Plan (2010 LRDP), which was approved by the Regents in September 2010 and certified by the California Coastal Commission in November, 2014. The 2010 LRDP (Figure D.1, Land Uses) shows that the project site and adjacent areas have an Open Space land use designation. In addition, most areas adjacent to the project site to the south, east and west also have an Environmental Sensitive Habitat Area (ESHA) overlay land use designation. 2010 LRDP PolicyESH-46 addresses the removal of the Ellwood Marine Terminal and states, in part: "*The Ellwood Marine Terminal (EMT) Facilities shall be removed and the site shall be restored to maximize habitat values*." LRDP Policy ESH-46 is included in its entirety in Section 5.11 (Land Use and Planning) of this IS/MND.

The UCSB 2010 LRDP Final EIR evaluated potential impacts that would have the potential to result from the continued operation of the EMT, which was still active when the EIR was prepared. LRDP EIR Impact HAZ-9 concluded that continued off-shore oil production and related operations at the EMT had the potential to result in significant impacts to public safety due to the possibility of a hydrogen sulfide vapor release from the on-site storage tanks or equipment. The LRDP EIR concluded that mitigation measures to reduce potential vapor emissions would be under the jurisdiction of Venoco and the CLSC and as such would be outside the jurisdiction of UCSB.

Therefore, impact HAZ-9 was considered to be significant and unavoidable. This potential impact, however, was eliminated when the operation of Platform Holly and the EMT were suspended in 2015.

1.6 REQUIRED PERMITS AND APPROVALS

The University of California is the Lead Agency for the Ellwood Marine Terminal Demolition and Restoration Project and is responsible for complying with the requirements of CEQA. The UCSB Chancellor has been delegated the authority to act as the primary decision-maker for the Project.

The Coastal Commission will review the Project and approval by the Commission is required. UCSB will seek the Coastal Commission's approval of the Project by filing a Notice of Impending Development.

The CSLC manages State lands located offshore of the EMT and a lease with the CSLC will be required for work removing the loading line at the University and CLSC jurisdictional boundary. The CSLC will review the Project as a Responsible and Trustee agency. Other Project-related Trustee agencies include the University of California Natural Reserve System, which manages the Coal Oil Point Reserve; the U.S. Fish and Wildlife Service; and the California Department of Fish and Wildlife.

Prior to the start of demolition activities, the Project must also obtain coverage by filing a Notice of Intent with the Water Resources Control Board under the General Permit for Discharges of Stormwater Associated with Construction Activity.

1.7 PROJECT OBJECTIVE

The objective of the Project is to restore the EMT project site located on the UCSB North Campus and the adjacent offshore site to a condition comparable to that found on surrounding lands. This objective would be achieved through the demolition and removal of existing onshore EMT structures and abandonment of offshore piping; remediation of contamination; grading to create natural contours where needed; preservation, enhancement, and creation of wetlands; invasive species removal; and revegetation with local, native plant species.

1.8 CUMULATIVE DEVELOPMENT

A list of reasonably foreseeable cumulative development projects on the UCSB campus is provided in Table 1.8-1. Some of the identified projects are unfunded and not approved. Project locations, building sizes, and project schedules are subject to change.

In addition to the development projects listed in Table 1.8-1, the 2010 LRDP proposes a comprehensive framework for the physical development of the UCSB campus to accommodate an on-campus enrollment of up to a three-quarter average of 25,000 full-time equivalent students, and a total of approximately 6,400 faculty and staff. The 2010 LRDP also includes the addition of approximately 1.8 million assignable square feet (ASF) of academic and support building space;

5,443 additional student bed spaces, 1,874 additional units of faculty and staff housing, and 239 additional units of housing for students with families.

Table 1.8-1
UCSB Cumulative Development Projects

Campus Project	Description/Location	Status
AS Bike Shop	Construct a 2,948 gross square foot AS Bike Shop for campus bicycle repair.	Under Construction Categorically Exempt Coastal Commission approval in October 2021
Ocean Walk Faculty Housing phase 4 and 5	Construct 70 units of faculty housing on the North Campus. Final phases	Under construction EIR certified in 2004 SCH 200307118 Coastal Commission approval in 2006
Main Campus Infrastructure Renewal Project	Planned throughout the Main Campus, the project is proposed to correct critical infrastructure deficiencies. The project will address storm drainage, sanitary sewer, potable and reclaimed water and natural gas pipelines.	Phases 1a, 1b and 1c are complete. Phase 2 is awaiting funding and construction MND adopted November 2007 SCH#2007101108
Ocean Road Faculty and Staff Housing	543 housing units located on the east and west sides of Ocean Road.	UC Regents Approval May 18, 2022
New Physics Building	64,000 ASF building located northwest of Broida Hall.	Planning Stages
Engineering III Building	75,000 ASF building located south of and adjacent to Mesa Road and east of Phelps Hall	Planning Stages
Munger Hall	Construct approximately 3,500 student bed spaces at the former Facilities Management site located on the UCSB Main Campus	Planning Stages

Source: Office of Campus Planning & Design and Office of Budget and Planning, 2023.
ASF = Assignable Square Footage

2.0 PROJECT DESCRIPTION

The proposed Project includes the removal and recycling of identified EMT equipment and facilities, along with handling and disposal of any non-hazardous and/or hazardous waste generated from demolition activities. The structures, equipment, and materials listed below and would be removed by the proposed Project:

- Crude oil storage tanks: two 65,000 barrel each (tanks #8264 and #8265)
- Ballast tank: one 1,000 barrel
- Firewater tank: one 10,000 barrel
- Pump house including pumps, leased automatic custody transfer (LACT) unit, and power connections
- Control room including electrical equipment and primary transformers
- Cathodic protection rectifiers and deep-well anode bed
- Buried connecting pipelines
- Approximately 17 power poles, with pole-mounted transformers and wiring on the EMT project site, and 13 power poles along Venoco Road that would be removed by Southern California Edison
- Air quality monitoring station, located to the east of the project site
- Aboveground pipelines, including the 12-inch diameter loading line as far as the flange connection at the bluff (approximately 775 feet long)
- Identified subsurface piping
- Buried 10-inch diameter loading line section under the bluff and beach to the offshore pipeline-end manifold (PLEM) valve (approximately 1,890 feet long)
- Offshore mooring system consisting of six seven-foot by 10-foot diameter mooring buoys, a 30-inch-diameter sphere hose buoy, and a spar pipeline marker.

2.1 PROPOSED DEMOLITION

All on-site utilities would be de-energized and disconnected from the facility, and the onshore portion of the loading line would be evacuated of any fluids prior to removal with containment measures implemented to capture any residual fluids that may be present. The collected fluids would be removed and disposed at a permitted disposal/recycling facility.

It should be noted that natural seepage of hydrocarbons (gas and oil) occur on- and offshore in the Santa Barbara Channel, therefore, there is the potential to encounter this naturally occurring material (e.g., tarballs) on the beach and near shore areas of the Project which are not associated with the historic operations of the EMT and will not be addressed by this Project.

For public protection, excavated areas would be backfilled before work is concluded each day if outside of the perimeter fence, or additional perimeter fencing/exclusion zones would be installed to secure the area. Soil would be stockpiled within the perimeter fence during excavation. Soil would be kept moist during excavation to mitigate the spreading of dust, covered to protect

from the weather and animals, and if the presence of hydrocarbons is detected, placed on an impermeable barrier (e.g., polyethylene sheeting). Site improvements or features to be retained at the EMT site include the ballast water pond due to environmental habitat sensitivity, and the existing access road from Storke Road

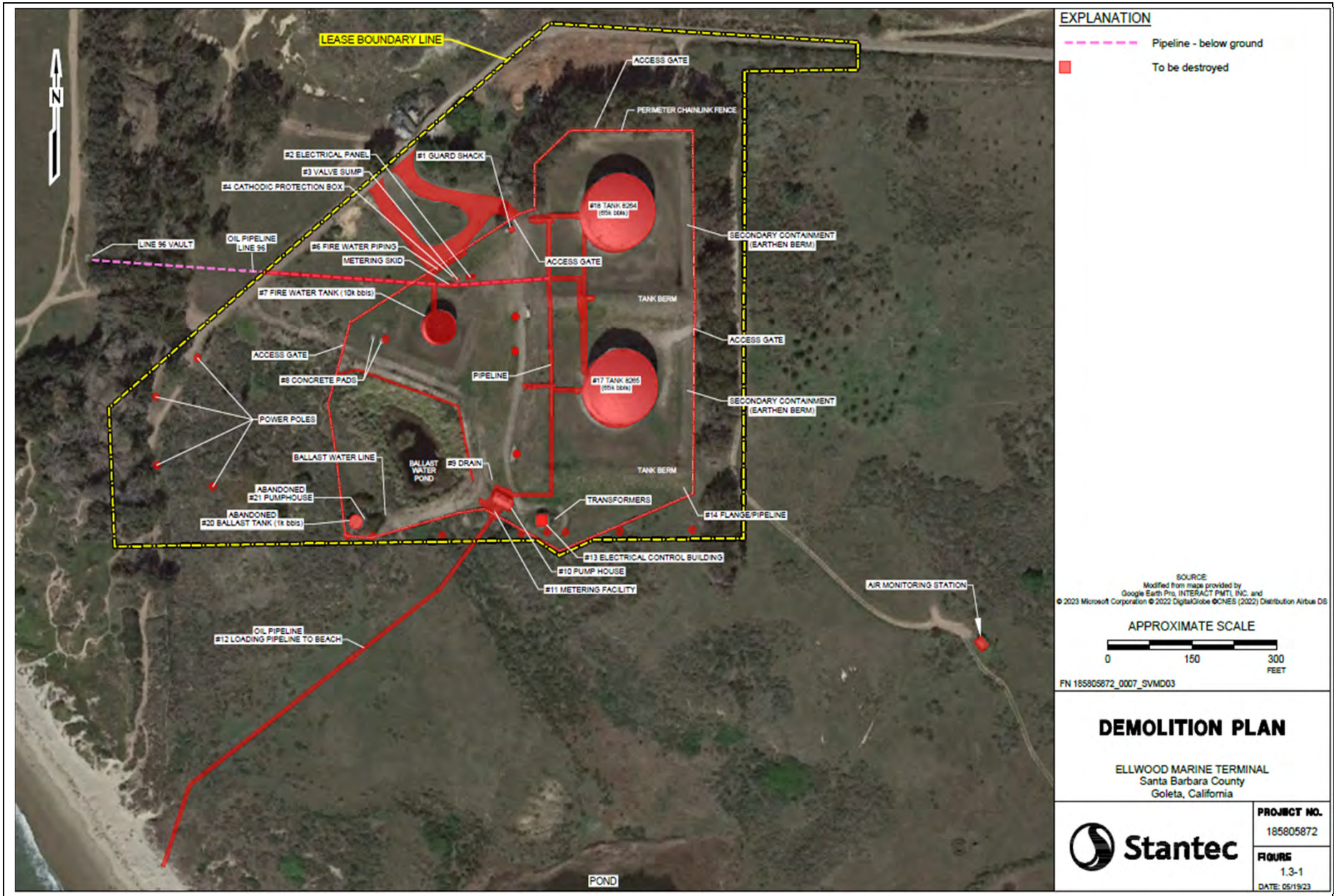
Vegetation and Berm Removal. The brush and grass around the ballast pond, the ballast tank and the area directly south of the pump house would be removed to facilitate demolition and pipeline removal activities. The north-south and east-west eucalyptus windrows would be removed. Trimming of trees around the ballast tank and along the access road to the beach would also be required.

In addition, several noxious or invasive plant species would be removed from the site, and the containment berms and other modified areas within the project site boundaries would be re-contoured in accordance with the grading plan included in the proposed restoration plan prepared for the Project (Appendix A). The proposed vegetation removal and berm grading would be conducted in a manner to minimize potential impacts to sensitive biological resources such as southern tarplant, native grassland, and wetland resources, and to facilitate restoration.

Structure Removal. Any identified hazardous materials and equipment within the site would be identified, removed prior to demolition and legally disposed of. All aboveground electrical conduits, electrical panels, and electrical support structures would be removed. The building structures would be disassembled by an excavator with a grapple, sorted, and stockpiled onsite for subsequent loading into trucks for offsite disposal. Underground pipelines and trenches would be exposed by excavation and removed. Concrete foundation and support pads would be broken into manageable-sized pieces and stockpiled on site for recycling. The remaining debris would be sorted into stockpiles for disposal of waste or recycling. Existing clean site soil (e.g., the tank berms) would be used to backfill the trenches and voids created during the removal of the concrete and foundations. The existing power and fence poles and associated footings would be removed from the ground and the holes backfilled. Structures to be removed from the project site are shown on Figure 2.1-1.

Tank Removal. For tanks 8264 and 8265, access ways would be cut into the earthen tank containment berms as needed to allow equipment to be moved close to the tanks. Steel or rubber protective mats will be placed on top of sensitive vegetation and wetland areas.

The four on-site tanks would be disassembled and cut into manageable-sized pieces using an excavator with hydraulic shears. The tanks would be collapsed inward, within the existing footprint to minimize impact to the surrounding area. An excavator would place the metal sheets into dump or end dump trucks for transport directly to a metal recycling facility, or to the onsite metal stockpile for later loading and recycling.



University of California, Santa Barbara
Ellwood Marine Terminal Demolition and Restoration Project

Figure 2.1-1
Proposed Onshore Demolition Plan

Underground Piping and Line 96 Pipeline Removal. Underground piping would be removed using an excavator, backhoe and/or hand tools to expose the piping. The piping would be removed from the trenches, sectioned, stockpiled, and loaded into trucks for recycling. All excavated trenches will be backfilled. The soil below removed pipelines would be inspected for contamination before being backfilled. To protect the aquatic habitat of the ballast water pond, any pipeline passing under the pond would be cut as close to the pond as practical, grouted, and abandoned in place. Piping deeper than 2 feet below the depth of required grading would also be grouted and abandoned in place. Piping will be verified to be cleaned out prior to grouting.

Sensitive resources were identified in the Tank 8264 containment area, including southern tarplant and preliminarily mapped jurisdictional wetlands. To protect these resources, the portion of Line 96 within the containment berm would be removed in sections by excavating in less sensitive areas to the extent possible, cutting and pulling the pipeline from more sensitive areas until it is completely removed. Excavation in the sensitive areas would be minimized.

The trenches would be backfilled using existing clean soil from the site. Additional trucking of import fill will not be required.

Onshore Loading Line Removal. The aboveground portion of the loading line along with its pipe supports and footings would be removed. The onshore loading line is constructed of a 12-inch diameter pipeline that extends 775 feet from the pump house to a 12-inch x 10-inch flange at the sand bluff at the beach.

Proposed procedures for the removal of the onshore portion of the loading line are described below.

Evacuation of Loading Line

The loading line was previously flushed and is understood to contain seawater. Prior to the loading line abandonment, any seawater remaining in the line would be removed and transported offsite for disposal. The fluids may be temporarily stored onsite in tanks and/or direct loaded into vacuum trucks.

Removal of Loading Line from Coal Oil Point Reserve

The loading line from the pump house building to the beach would be removed in accordance with the procedure below:

a. The loading line would be cut or disconnected at the bluff. Containment would be placed to capture any residual fluids that remain in the line.

b. A pulling bridle would be attached to the pipeline and a tracked dozer, or similar equipment would pull or winch the pipe onto the EMT property.

c. As it is pulled onto the EMT property, the pipeline would be cut into 20-40-foot sections, which would be lifted and transported by an excavator to a stockpile area for subsequent loading into trucks for transport and recycling.

d. If the equipment is initially unable to pull the entire length of the pipeline from the EMT facility, equipment will enter the northern end of the Reserve and travel along the pipeline. The piping would be sheared into smaller sections and pulled onto the EMT facility.

e. The pipeline supports and footings would be pulled out of the ground using a mini-excavator or skidsteer. If heavy equipment is used, mats may be placed along the pipeline alignment for ground protection depending upon soil conditions.

f. Throughout the pipeline removal process, appropriate warning signs, barriers, etc., would be used to temporarily restrict public access through the work area. Excavated areas would be backfilled before work is concluded each day if outside of the perimeter fence, or additional perimeter fencing/exclusion zones would be installed to secure the area.

Beach and Offshore Loading Line Removal. Removal of the offshore portion of the pipeline would likely require the use of three boats, such as or similar to the following: the *Alice C*, a 120-foot tugboat; the *DB Ironbound*, a 150-foot derrick barge; and the *King C*, an 85-foot crew boat. The *Alice C* would mobilize from the Port of Long Beach, remain at the project site, and make three trips to the Santa Barbara Harbor for fueling and provisions. The *DB Ironbound* would mobilize/demobilize from the Port of Long Beach, and would transport demolition material to the Port of Long Beach at the end of the Project. The *King C* would make two crew change trips to the *Ironbound* from the Santa Barbara Harbor daily.

Pipeline removal operations would occur 24 hours per day, seven days a week, for approximately 38 days. General procedures and equipment used to remove the loading line from beach and offshore areas are described below.

a. Removal of the pipe from the surf zone would require the use of tracked or wheeled equipment. Tracked equipment offers the ability to provide increased pulling torque, and offers a lighter weight footprint than comparable wheeled equipment. Pulling winches and cables would be used, and arranged so as to minimize the need to have any heavy equipment cross the existing beach bluff or to minimize any scarring of the site. The applicant would use reasonably available construction equipment that offers the lightest soil loadings and smallest physical size necessary to perform the intended activities.

b. A dive team would locate the loading line at the offshore end of the pipeline. They would excavate as necessary and cut the pipeline utilizing underwater burning equipment and remove any above sea floor piping and the flange and valve from the end of the line.

c. A derrick barge, or barge or workboat outfitted with a crane, would be positioned at the offshore end of the pipeline. Alternatively, instead of a crane a winch and stern roller may be used.

d. The derrick barge would be held in place with a four-point anchor mooring system. The anchors would be placed to allow the barge to be moved toward shore along the pipeline. Anchors would be moved toward shore as required to facilitate complete pipeline removal.

e. A dive team would locate the loading line at the offshore end of the pipeline. They would excavate as necessary to locate the pipeline approximately 20 feet to 40 feet from the end and cut the pipeline utilizing underwater burning equipment. A seep tent would be used to contain potential hydrocarbon leakage into the marine environment during loading pipeline decommissioning and abandonment procedures. The divers would attach the cut section of the line to the barge crane. The crane would lift the pipe section and place it on the barge deck. Jetting equipment may be utilized to uncover partially buried pipe and assist in the removal process. Note: Depending upon the amount of burial observed and current and wave states at the time of execution, it may be possible to lengthen the amount of pipeline between cuts; subject to maximum pulling limits. Longer cut pipe lengths would result in less anchor repositioning and faster execution. If longer pulls are possible, then the pipe would still be cut to 20 feet to 40 feet lengths on the beach instead of offshore.

f. The diver team would then move along the pipeline toward shore and excavate as necessary to locate the pipeline approximately 20 feet to 40 feet from the previously cut end and repeat this process until all piping is recovered.

g. Due to barge requirements and water depth, and how much pipe was removed from shore, the last segment of pipeline to be removed may require lifting and dragging along the sea floor for cutting into 20 feet to 40 feet segments and removal.

h. As sufficient pipeline lengths are accumulated on the barge, the pipeline would be loaded onto a crew-supply or workboat and transported to Venoco's Ellwood pier or Point Hueneme for loading on to trucks and transporting for recycling.

i. Following completion of the loading pipeline decommissioning, the workboat would then position itself over each of the six anchors in turn for preparation of mooring anchor removal. Each anchor leg consists of a mooring buoy, a chain, and a 16,000-pound mooring. A dive survey would be conducted to remove all remaining mooring equipment and EMT related debris from the ocean floor.

j. Throughout the pipeline removal process, appropriate warning signs, barriers, monitors, etc., would be provided in beach areas to temporarily restrict public access through the work area.

Removal of Loading Line from Bluff. An excavator would access the Coal Oil Point Reserve from the EMT facility and travel down the pipeline alignment. The pipeline would be exposed by excavating the overlying dune, cut near the beach, and will be transported back to the EMT facility. The pipeline may be cut into smaller pieces for transport at the dune or back at the EMT facility. The wooden retaining walls at the bluff would also be removed.

2.2 SITE ASSESSMENT AND REMEDIATION

A Phase 1 Site Assessment of the project site was conducted in October 2012 (InterAct Tier 1 Site Assessment dated June 2013). Based on the results, additional investigation is required. A Site Assessment will be performed subsequent to removal of the structures as further detailed below. The dried surficial tar/stained soil observed within the tank berms and the area directly south of the pump house would be removed and disposed of at a licensed facility. If hydrocarbon-containing soil associated with historic operation of EMT is found during the Project which exceeds commercial/industrial standards of the California Regional Water Quality Control Board – Central Coast Region (Water Board), additional assessment and/or remediation will be performed in accordance with regulatory requirements, which may include removal of some soil offsite for disposal at a licensed facility. At minimum the additional site assessment will include:

- Additional soil sampling south and west of the ballast water pond;
- Soil sampling underneath the two large oil storage tanks;
- Soil sampling of all other areas which may be identified during removal of the facilities;
- Visual inspection of soil in all trenches; and
- Groundwater sampling up- and down-gradient of the ballast water pond.

Limited excavation to remove surficial or near surface soil containing constituents of concern associated with historic operation of the EMT, which exceed applicable Water Board standards, may be performed in consultation with the Water Board during Project grading activities. Excavated soil will be transported offsite for disposal and excavated areas will be backfilled using soil from the tank berms.

2.3 SITE RESTORATION

The proposed Project includes the restoration of the project site in accordance with a proposed restoration plan titled *Restoration and Monitoring Plan, Ellwood Marine Terminal Decommissioning* (2015). The proposed restoration activities are summarized below and the entire restoration plan is included as Appendix A of this IS/MND. Figure 2.3-1 shows proposed habitat types and areas to be restored or created at the project site and Figure 2.3-2 shows proposed project site grading and contours.

The proposed restoration plan is designed to return the project site to a condition comparable to that found on surrounding lands, based on demolition of existing structures, grading to create natural contours where needed, preservation, enhancement, and creation of wetlands, invasive species removal, and revegetation with local, native plant species. Following demolition

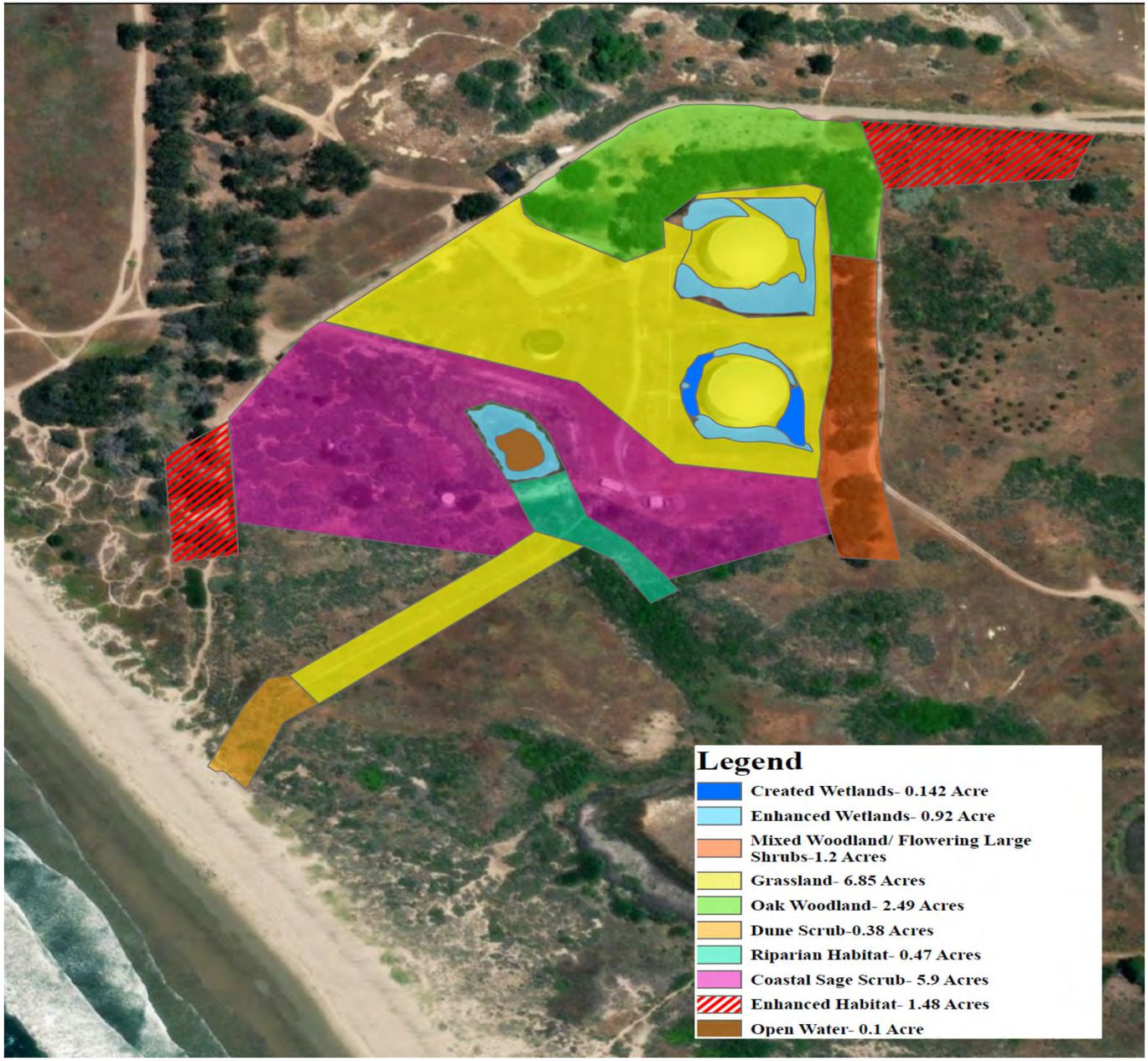


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Figure 2.3-1

Proposed Restoration Plan

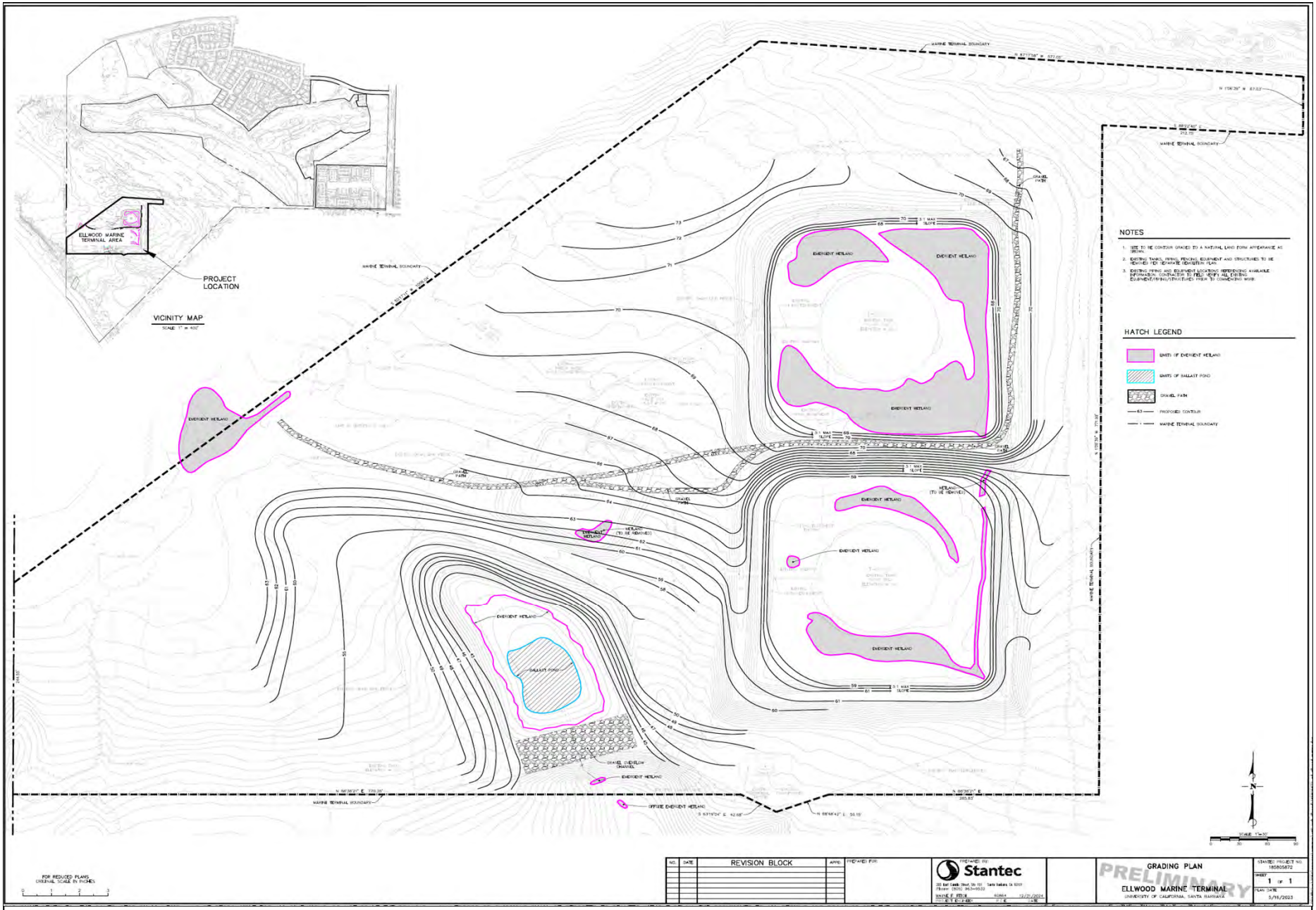

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Figure 2.3-2

Proposed Grading Plan

and site assessment activities, portions of the site will be graded to approximate natural contours (USGS 1870 topographic map) and to create wetland habitat areas. Proposed grading operations would result in approximately 12,100 cubic yards of cut and 10,890 cubic yards of fill. Due to the shrinkage of soil at the project site, no export of soil is anticipated. After the completion of site grading and preparation, the site would be revegetated with native plant species as shown on Figure 2.3-1. The 98 eucalyptus trees along the northern and eastern perimeters of the project site would be removed and replaced with native plant species. A 5-year restoration success monitoring program would also be implemented in accordance with the proposed restoration plan.

2.4 DEMOLITION MATERIAL MANAGEMENT

Truckloads for metal recycling are estimated based on a maximum truck bed size of 8 feet wide by 40 feet long by 8 feet high and a net load of 21 tons. It is assumed that the concrete pads would be hauled from the site in 15 cubic yard loads. A 15 percent contingency is added to the number of truck trips to allow for unanticipated load variations. Recovered liquids would be transported in 120-barrel vacuum trucks. For the project's demolition activities, the following truck round trips are estimated:

Material	Estimated Truck Loads
Metals (structures, piping, etc.)	38
Concrete, reclaimed gravel, road base, asphalt, structural debris, trash	42
Electrical	3
Liquids	2
Vegetation/eucalyptus trees*	0
Tar / soil	TBD
Import Fill	0
TOTAL	85 Loads

* Vegetation will be chipped onsite and used as mulch

All truck traffic will exit the project site and proceed directly onto Storke Road and then to Highway 101. Trucks will proceed north or south on Highway 101, depending on the final disposition of waste and recycle material. Except for Storke Road, no other surface street use is anticipated.

Demolition activities will require an estimated 10 to 12 on-site personnel, including potential cultural and natural resource monitors. The demolition contractor will employ workers anticipated to be mostly residents of Santa Barbara and Ventura Counties.

Waste Disposition. The applicant would recycle as much of the equipment and materials (e.g., metal and concrete) as possible during the demolition. All waste from the demolition will be managed in accordance with applicable regulations.

2.5 PROPOSED PROJECT SCHEDULE

The proposed demolition schedule is composed of the following activities and durations. The schedule is tentative, based on information currently available, permit reviews, and responses. Demolition is also contingent upon receipt of the required approvals and permits. Overall demolition operations are estimated to require 90 to 120 days, depending on the scheduling of concurrent (overlapping) activities. The following schedule is estimated to complete the project demolition:

- Mobilization and site setup - 3 days
- Demolition of aboveground piping, tanks, structures - 90 days
- Abandonment in place of underground piping - 20 days
- Demolition of aboveground loading line - 5 days
- Removal of the submerged loading line and anchor buoys – 38 days
- Site cleanup - 2 days
- Demobilization - 2 days

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Descriptions of project-specific and cumulative impacts that have the potential to be significant, or that have been determined to be less than significant, are provided in the narrative of Section 5.0 of this IS/MND.

If this Initial Study evaluation of potential environmental impacts concludes that the Project would not result in an impact regarding a specific environmental issue area, that issue area is denoted with an "NI" (no impact) in the table provided below. Environmental issue areas denoted by an "LS" were determined to have less than significant impacts. Environmental issue areas denoted with an "M" would have impacts that can be feasibly reduced to a less than significant level with the implementation of mitigation measures identified by this IS/MND. The analysis provided by this IS/MND indicates if individual mitigation measures required to reduce project-related impacts to a less than significant level are from the 2010 LRDP, a modified LRDP mitigation measure, or developed specifically for the proposed project. The Project would not result in any "Potentially Significant Impacts" that cannot be reduced to a less than significant level.

LS	Aesthetics	NI	Agriculture and Forestry Resources	M	Air Quality
M	Biological Resources (terrestrial and marine)	M	Cultural Resources	LS	Geology/Soils
LS	Greenhouse Gas Emissions	M	Hazards & Hazardous Materials	LS	Hydrology/Water Quality
M	Land Use/Planning	NI	Mineral Resources	LS	Noise
NI	Population/Housing	NI	Public Services	NI	Recreation
M	Transportation/Traffic	M	Tribal Cultural Resources	LS	Utilities/Service Systems
M	Wildfire	M	Mandatory Findings of Significance		

NI: No impact
LS: Less than significant impact
M: Less than significant with the implementation of proposed mitigation

4.0 ENVIRONMENTAL DETERMINATION

On the basis of the initial evaluation that follows:

☐ I find that the proposed project WOULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, the project impacts were adequately addressed in an earlier document or there will not be a significant effect in this case because revisions in the project have been made that will avoid or reduce any potential significant effects to a less than significant level. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

Shari Hammond	05/23/2023
Signature	Date
Shari Hammond	UC Santa Barbara
Printed Name	For

5.0. EVALUATION OF ENVIRONMENTAL IMPACTS

The University has defined the column headings in the Initial Study checklist as follows:

A) "**Potentially Significant Impact**" is appropriate if there is substantial evidence that the project's effect may be significant. If there are one or more "Potentially Significant Impacts" a Project EIR will be prepared.

B) "**Project Impact Adequately Addressed in LRDP EIR**" applies where the potential impacts of the proposed project were adequately addressed in the LRDP EIR and mitigation measures identified in the LRDP EIR will mitigate any impacts of the proposed project to the extent feasible. All applicable LRDP EIR mitigation measures are incorporated into the project as proposed. The impact analysis in this document summarizes and cross references (including section/page numbers) the relevant analysis in the LRDP EIR.

C) "**Less Than Significant With Project-level Mitigation Incorporated**" applies where the incorporation of project specific mitigation measures will reduce an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All project-level mitigation measures must be described, including a brief explanation of how the measures reduce the effect to a less than significant level.

D) "**Less Than Significant Impact**" applies where the project will not result in any significant effects. The project impact is less than significant without the incorporation of LRDP or project-level mitigation.

E) "**No Impact**" applies where a project would not result in any impact in the category or the category does not apply. "No Impact" answers need to be adequately supported by the information sources cited, which show that the impact does not apply to projects like the one involved (*e.g.*, the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (*e.g.*, the project will not expose sensitive receptors to pollutants, based on a project specific screening analysis).

	(A)	(B)	(C)	(D)	(E)
Issues	**Potentially Significant Impact**	**Project Impact Adequately Addressed in LRDP EIR**	**Less Than Significant with Project-level Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
5.1 AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	✓	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	✓	☐
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	✓	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	✓	☐

5.1.1 Setting

The project site is located on the University's North Campus, adjacent to COPR and the North Campus Open Space (NCOS) restoration area. The Pacific Ocean is adjacent to the site to the southwest, and Devereux Slough is to the east. Public views in this area are generally characterized by open space, broad views of the Pacific Ocean and surrounding coastal habitat. Views of the site from nearby locations are partially screened by stands of eucalyptus at the northern and eastern boundaries of the project site, and views of the site are generally from surrounding local trails and adjacent open space areas. Currently, the project site contains numerous above and below grade oil- and gas-related facilities. Those facilities that are most visible from surrounding areas include: two crude oil storage tanks, a ballast tank, a firewater tank,

a pumping house, control room, numerous power poles, and an idle loading line extending from the facility that is partially visible at the beach. A typical view of the EMT site from a viewpoint readily available to the public is provided on Figure 5.1-1. Existing lighting at the project site consists of a limited amount of low-intensity nighttime security lighting.

2010 LRDP Requirements. 2010 LRDP Figure F.4 (Scenic and Visual Resources) identifies scenic view points on the UCSB campus. Identified scenic view points on the project site include: views of COPR and the ocean to the south, and NCOS and the Santa Ynez Mountains to the north.

The 2010 LRDP includes Visual and Scenic Resource policies that generally apply to the development of new buildings on the UCSB campus. Policies that are applicable to the Project include:

> **Policy SCEN-07** - For trees with significant scenic value, the first priority shall be to avoid tree removal where feasible. If tree removal cannot be avoided, the second priority shall be relocation of the tree. If the scenic tree cannot feasibly be retained in place, the tree removal shall be conducted and mitigated consistent with the Tree Trimming and Removal Program in Appendix 2. Where a scenic tree is located within ESHA or Open Space the tree trimming and removal shall be subject to Policy ESH-29. Policy ESH 29 states, in part, that the removal of trees from areas designated as ESHA or Open Space (such as the project site) requires the approval of a Notice of Impending Development (NOID) by the California Coastal Commission.

In addition, 2010 LRDP Appendix 2 (Campus Tree Trimming and Removal Program) states that any removed native tree or breeding/nesting tree for which a NOID was required shall be replaced at a 3:1 ratio with a native tree, and any ornamental tree with a trunk diameter of six inches or more at breast height that is removed shall be replaced with a native or ornamental tree at a 1:1 ratio.

5.1.2 Checklist Responses

a. *Would the proposed project have a substantial adverse effect on a scenic vista?*

> The staging and operation of demolition equipment at the project site may be temporarily visible from surrounding neighborhoods, trails, and the beach; however, this equipment would not obstruct existing scenic vistas of the Pacific Ocean, the Santa Ynez Mountains, or open space areas near the project site. The visual impacts during demolition and restoration would be temporary (3-4 months). The proposed project would restore the site by creating topography similar to adjacent conditions and establishing native habitat areas.

This photo shows the EMT project site as seen looking southward from a viewpoint located near the end of the Venoco Road access road. The 65,000 barrel tank No. 8264 is predominately screened by eucalyptus trees but is partially visible on the left side of the photo. The 65,000 barrel tank No. 8265 is visible in the photo center. The 10,000 barrel fire water storage tank is visible in the photo center-right. Other EMT project facilities that are visible include power poles and power lines, secondary containment berms, above-ground pipelines, paving, and other equipment. The Pacific Ocean is faintly visible to the left and right of the fire water tank.

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Ellwood Marine Terminal Demolition and Restoration Project

Figure 5.1-1

Typical Project Site View

These project-related actions would eventually result in the visual enhancement of the site by demolishing existing oil- and gas-related structures and creating open space with native plant species. Therefore, the Project's short- and long-term impacts on scenic vistas would be **less than significant**.

During the removal of the offshore portion of the loading line, a tug boat, barge, and crew boat would be visible offshore, and some construction equipment would be visible onshore along the beach. This temporary impact would occur for approximately 38 days. After the removal of the pipeline is complete, boats and other equipment would be removed, and disturbed areas would be restored to a condition similar to existing conditions. Therefore, short-term impacts on scenic vistas resulting from the removal of the loading line would be potentially adverse but **less than significant.**

b. *Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

As described in response "a" above, changes to the visual character of the project site that would result from proposed demolition and restoration activities and associated topography modifications would not substantially change the overall visual character of the project site. Areas disturbed by the removal of the oil loading line (i.e., areas on the COPR and the coastal bluff) would be restored and revegetated, therefore, there would be no long-term changes to the appearance of those scenic resources. With the demolition of the idled oil gas facilities the visual character of the project site would be enhanced, and unobstructed views of the surrounding natural landscapes and Pacific Ocean would be increased.

The Project-related removal of the non-native eucalyptus trees located adjacent to the site's eastern and northern perimeters would affect scenic tree resources, however, compliance with the tree replacement requirements of the 2010 LRDP would minimize this impact. In accordance with LRDP Policy SCEN-07, and in anticipation of removing the eucalyptus windrow at the project site, between 2014 and 2017, approximately 528 coast live oak trees were planted on COPR. In 2017, 407 of the planted oak trees were thriving. In addition, and as shown on Figure 2.3-1, the proposed project site restoration plan includes planting oak trees and other native plants, such as elderberry, lemonade berry, and toyon, on the project site. The planting of replacement trees on and adjacent to the project site is consistent with the requirements of Policy SCEN-07 because the 2010 LRDP encourages the removal of non-native eucalyptus trees from the campus, and due the size and age of the existing eucalyptus trees relocating them would not be feasible.

The removal of offshore portions of the oil loading line would not have the potential to damage scenic resources such as trees or rock outcroppings. Therefore, the Project's impacts to scenic resources such as trees and rock outcroppings (the ocean bluff), and the beach adjacent to the project site would be **less than significant**.

c. *In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced*

from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The proposed project would provide a beneficial change to the visual character of the project site by removing oil- and gas-related structures and equipment and restoring the site with native plant species. The proposed project would allow for the project site to be more visually compatible with the surrounding open spaces of COPR to the southeast and the Sperling Preserve to the northwest. The Project would not result in structural development on the project site and would not degrade the existing visual character or quality of the site.

The removal of the offshore portion of the EMT loading line could occur concurrently with or independent of the removal of the onshore facilities. Removal of the loading line would require the short-term use of construction equipment on the beach and marine vessels. The use of this equipment would have the potential to result in adverse impacts to scenic views of the beach and ocean. However, disturbed areas would be restored, and due to the short duration of the loading line removal work (approximately 38 days) the removal of the loading line would not result in a significant aesthetic impact. Therefore, the Project's short- and long-term changes to the site's visual character would be **less than significant** and beneficial.

d. *Would the project have the potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Existing nighttime security lighting at the EMT site would be removed along with the proposed demolition operations. There would be no night lighting used at the EMT site related to proposed demolition or restoration activities, or post restoration of the site. Therefore, the Project would not affect neighboring areas with glare or night lighting. Offshore nighttime lighting associated with the removal of the loading line would be used on the barge, crew, and tug boats. A barge typically has deck lighting that illuminate the water around the barge. The barge and other boat lights would be visible from the adjacent beach and bluffs, but would be located too far offshore to result in light "trespass" onto surrounding properties or uses, and would be the minimum required for safety purposes. Therefore, the Project would have a **less than significant** impact resulting from lighting on the EMT site and in adjacent areas.

5.1.3 Cumulative Impacts

The Project would remove existing onshore oil and gas infrastructure from the project site that may be considered to be incompatible with open space views provided in the project area. The Project would also restore existing disturbed and non-native habitats on the project site; would retain the open space character of the site; would not degrade the visual quality of the project site; and would not contribute to the degradation of other open space areas in the project region. The removal of the offshore loading line would not result in changes to existing visual conditions. Therefore, the Project's impacts to scenic vistas and the visual resources of the project region would not be cumulatively considerable and the project's cumulative impacts would be **less than significant**.

5.1.4 Mitigation Measures

The Project would have less than significant aesthetic impacts and no mitigation measures are required.

	(A)	(B)	(C)	(D)	(E)
Issues	**Potentially Significant Impact**	**Project Impact Adequately Addressed in LRDP EIR**	**Less Than Significant with Project-level Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
5.2 AGRICULTURE AND FOREST RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the CA Resources Agency, to non-agricultural use?	☐	☐	☐	☐	✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	✓

	(A)	(B)	(C)	(D)	(E)
Issues	**Potentially Significant Impact**	**Project Impact Adequately Addressed in LRDP EIR**	**Less Than Significant with Project-level Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐	✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐	✓

5.2.1 Setting

Section 12220(g) of the Public Resources Code defines "forest land" as "land that can support 10 percent native tree cover for any species, including hardwoods, under natural condition, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Public Resources Code section 4526 defines "timberland" as "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."

Government Code section 51104(g) defines "timberland production zone" as "an area which has been zoned pursuant to Section 5112 or 5113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses…"

There are no agricultural, forest lands or timberland resources, or Timberland Production zones on the UCSB campus or on nearby off-campus areas.

5.2.2 Checklist Responses

a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the CA Resources Agency, to non-agricultural use?*

See response provided below under item "e."

b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

See response provided below under item "e."

c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

See response provided below under item "e."

d. *Result in the loss of forest land or conversion of forest land to non-forest use?*

See response provided below under item "e."

e. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

There are no agricultural operations or forest resources located on or near the UCSB Campus, and it is not reasonably foreseeable that agricultural operations or forest resources would be established near the project site in the future. Therefore, the onshore and offshore components of the Ellwood Marine Terminal Demolition and Restoration Project would have **no impact** on agricultural or forest resources.

5.2.3 Cumulative Impacts

The Project would have no impact to agriculture and forest resources and would have **no impact** related to potential cumulative effects.

5.2.4 Mitigation Measures

The Project would have no impact on agricultural and forest resources. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.3 AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	✓	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	✓	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	✓	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	✓	☐

5.3.1 Setting

Air Quality Conditions. Federal and state ambient air quality standards have been established for seven "criteria" pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates less than 10 microns in diameter (PM_{10}), particulates less than 2.5 microns in diameter ($PM_{2.5}$) and lead. California has also adopted standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles.

The Santa Barbara County Air Pollution Control District (APCD) is required to monitor air pollutant levels to assure that federal and state air quality standards are being met. In February 2021, the California Air Resources Board took action at a public hearing to change Santa Barbara

County's designation from attainment to nonattainment for the State ozone standards. This change was based on data measured at multiple locations in the County for the 3-year period from 2017 to 2019. The California Office of Administrative Law finalized the designation change on September 27, 2021. To be designated attainment, an air district must show that the ozone standard is not violated for three consecutive years. The County violates the state standards for PM_{10} and is in attainment for the state $PM_{2.5}$ standard. The air basin is an attainment area for all other federal and state air quality standards. The County's attainment status for criteria pollutants is depicted on Table 5.3-1.

Table 5.3-1
Ambient Air Quality Standards

Pollutant	Averaging Time	State Attainment Status	National Attainment Status
Ozone	1-hour	Nonattainment	--
	8–hour	Nonattainment	Unclassified/Attainment
Particulate Matter (PM_{10})	24-hour	Nonattainment	Unclassified
	Annual mean	Nonattainment	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	Unclassified/Attainment
	Annual mean	Attainment	Unclassified/Attainment
Carbon Monoxide	8-hour	Attainment	Unclassified/Attainment
	1-hour	Attainment	Attainment
Nitrogen Dioxide	Annual mean	Attainment	Unclassified/Attainment
	1-hour	Attainment	Unclassified/Attainment
Sulfur Dioxide	24-hour	Attainment	--
	1-hour	Attainment	Unclassified/Attainment
Lead	30-day Average	Attainment	--
	3-month average	--	Unclassified/Attainment

Ozone is formed in the atmosphere through a series of chemical reactions involving nitrogen oxides (NO_x), reactive organic gases (ROG) and sunlight. Ozone is classified as a "secondary" pollutant because it is not emitted directly into the atmosphere. The major sources of ozone in the County are motor vehicles, the petroleum industry and the use of solvents (paint, consumer products and certain industrial processes). PM_{10} is generated by a variety of sources, including windblown dust, grading, agricultural tilling, road dust and quarries.

Air Quality Regulations. The 1990 Federal Clean Air Act Amendments and the 1988 California Clean Air Act regulate the emissions of airborne pollutants and have established ambient air quality standards. The United States Environmental Protection Agency administers federal air quality regulations, and the California Air Quality Board (CARB) is the California

equivalent. The CARB establishes air quality standards and is responsible for control of mobile emission sources. Local APCDs have jurisdiction over stationary sources and must adopt plans and regulations necessary to demonstrate attainment of federal and state air quality standards. The Santa Barbara County APCD has jurisdiction over air quality attainment in the Santa Barbara portion of the South Central Coast Air Basin.

Clean Air Plans. The 1988 California Clean Air Act requires all air pollution control districts and air quality management districts in the state to adopt and enforce regulations to achieve and maintain air quality that is within the State air quality standards. The Santa Barbara County APCD 2022 Ozone Plan is the tenth triennial update to the initial state Air Quality Attainment Plan adopted by the District Board of Directors in 1991. Prior ozone plan updates were completed for 1994, 1998, 2001, 2004, 2007, 2010, 2013, 2016, and 2019. In the past, the APCD has prepared air quality attainment plans that have addressed both the state and federal ozone standards. The 2022 Ozone Plan addresses the state ozone standards only because the District is designated "attainment" for the federal 8-hour ozone standards.

Each of the ozone plan updates have implemented an "every feasible measure" strategy to ensure continued progress toward attainment of the state ozone standards. Since 1991, the District has adopted or amended more than 30 control measures aimed at reducing emissions from stationary sources of air pollution and to help Santa Barbara County reach attainment of the state ozone standards. These measures have substantially reduced NOx and ROC emissions, which are the precursor pollutants to ozone.

Existing Project Site Air Emission Sources. The oil and gas facilities located at the project site were discontinued in 2015 and decommissioning of the EOF-EMT Line 96 segment was completed in 2017. From November 2020 through January 2021, the aboveground storage tanks and pipelines within EMT site were cleaned to remove the residual crude oil, sludge and gas, and the waste was disposed. No activities are currently being conducted at the site. Therefore, the site is not a substantial source of air emissions.

Sensitive Receptors. Sensitive receptors are generally defined as pollutant-sensitive members of the population or where air pollutant emissions could adversely affect use of the land. Sensitive members of the population include those who may be more negatively affected by poor air quality than other members of the population, such as children, the elderly, or persons with respiratory conditions. In general, residential areas, hospitals, elder-care facilities, primary and secondary schools, are considered to be sensitive receptors. The on- and off-campus sensitive receptors located near the project site include: UCSB Ocean Walk Faculty Housing approximately 1,700 feet to the north; the Devereux Advanced Behavioral Health center approximately 2,000 feet to the north; the West Campus Housing project approximately 3,000 feet to the east; the Orfalea Family Children's Center approximately 3,000 feet east of the EMT site; and the community of Isla Vista and the Isla Vista Elementary School approximately 3,700 feet to the east.

5.3.2 Impact Significance Thresholds

Short-Term Impacts. Although quantitative thresholds of significance are not currently in place for short-term emissions, CEQA requires that short-term impacts, such as exhaust emissions from construction equipment and fugitive dust generation during grading, be discussed in the environmental document. In the interest of public disclosure, the APCD recommends that construction-related NOx, ROC, PM10 and PM 2.5 emissions, from diesel and gasoline powered equipment, paving, and other activities, be quantified.

Under APCD Rule 202 D.16, if the combined emissions from all construction equipment used to construct a stationary source that requires an Authority to Construct permit have the potential to exceed 25 tons of any pollutant, except carbon monoxide, in a 12-month period, the owner of the stationary source shall provide offsets under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard will be violated. The proposed Project would result in the abandonment of a former stationary emissions source (the Ellwood Marine Terminal) and the site would be restored to open space and native habitat. However, for information purposes, the Project's estimated construction-related emissions are compared to the 25 ton/year threshold.

Standard dust control measures must be implemented for any discretionary project involving earth-moving activities. Some projects have the potential for construction-related dust to cause a nuisance. Since Santa Barbara County violates the state standard for PM10, dust mitigation measures are required for all discretionary construction activities regardless of the significance of the fugitive dust impacts based on the policies in the 1979 Air Quality Attainment Plan.

Long-Term and Cumulative Impacts. The Santa Barbara APCD and Santa Barbara County have adopted thresholds of significance for evaluating a project's long-term air quality impacts. As described in Section 5.3.3 below, the proposed Project would not be a substantial long-term source of air emissions. However, for information purposes, the air quality thresholds of significance adopted by Santa Barbara County in their *Environmental Thresholds and Guidelines Manual* (2008) are listed below. Based on those thresholds, a project will not have a significant project-specific or cumulative air quality impact if operation of the project will:

1. Emit (from all project sources, mobile and stationary) less than the daily trigger for offsets set in the APCD New Source Review Rule for any pollutant (55 lbs/day for ROG and NO_x, and 80 lbs/day for PM_{10}).

2. Emit less than 25 pounds per day of oxides of nitrogen (NO_x) or reactive organic compounds (ROG) from motor vehicle trips only.

3. Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone).

4. Not exceed the APCD health risk public notification thresholds adopted by the APCD Board for air toxics.

5. Be consistent with the adopted federal and state Air Quality Plans.

5.3.3 Checklist Responses

a. *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Consistency with the Santa Barbara County Ozone Plan means that direct and indirect emissions associated with the project are accounted for in the Ozone Plan's emissions growth assumptions and the project is consistent with measures that are developed and implemented in accordance with the Ozone Plan. The Ozone Plan relies primarily on land use and population projections provided by the Santa Barbara County Association of Governments (SBCAG) and California Department of Finance and on-road vehicle emissions forecasts provided by SBCAG as a basis for vehicle emission forecasting.

The 2010 LRDP would increase the UCSB student enrollment approximately one percent per year to 25,000 full time equivalent students by the year 2025. The proposed Project would not result in or facilitate a direct or indirect increase in student enrollment at UCSB. In addition, the Project would not be a substantial long-term source of air emissions. Therefore, the Project would be consistent with/have a **less than significant** impact on the Santa Barbara County Clean Air Plan.

b. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Short-term Construction Impacts. The use of heavy equipment, motor vehicles and marine vessels associated with the following activities would generate air emissions: demolishing project site equipment and structures, grading the site, hauling demolition material from the site, removal of the offshore loading pipeline and mooring buoys, and restoring and monitoring the site. The CalEEMod (version 2022.1) program was used to estimate the emissions resulting from proposed onshore demolition and site restoration activities. The complete CalEEMod model results are provided in Appendix B. Offshore abandonment air pollutant emissions were estimated using emissions factors from CARB's OFFROAD 2021 model and the San Pedro Bay Ports Emissions Inventory.

A summary of the emissions resulting from the use of heavy equipment, motor vehicles and marine vessels is provided on Table 5.3-2. Total project-related short-term emissions of each pollutant would be substantially lower than the 25 tons per year emissions guideline the APCD uses to determine the significance of construction-related emission impacts. The pollutant with the highest emission rate would be NO_x at approximately 13.67 tons per year. Therefore, short-term emissions of criteria pollutants would be a **less than significant** impact and no mitigation is required.

Table 5.3-2
Estimated Construction Emissions

Project Component	Construction Emission Estimates (2024) (unmitigated, tons per year)							
	ROG	NO_x	CO	SO_2	PM_{10}		$PM_{2.5}$	
					Dust	Exhaust	Dust	Exhaust
Onshore	0.46	4.28	4.02	0.01	0.08	0.18	0.2	0.17
Offshore	0.85	9.39	3.92	--	--	0.42	--	0.38
Total	**1.31**	**13.67**	**7.94**	**0.01**	**0.08**	**0.60**	**0.2**	**0.55**

Onshore data source: CalEEMod 2022.1

Short-term project-related emissions of PM_{10} would incrementally contribute to an existing air quality standard exceedance, and fugitive dust has the potential to result in significant nuisance impacts. Therefore, construction-related dust emissions would be a potentially significant air quality impact. This impact would be **reduced to less than significant** with the implementation of proposed mitigation measure AQ-1a, which includes dust control best management practices recommended by the Santa Barbara APCD and required by the 1979 Air Quality Attainment Plan.

Other Project-related short-term emission not included on Table 5.3-2 would result from a limited number of intermittent vehicle trips associated with site revegetation monitoring, and the seasonal use of landscaping/maintenance equipment used to control weeds at the site. These emissions would occur during the Project's five-year monitoring period but would be minor and would not have the potential to cause the Project's short-term emissions to exceed the short-term emission threshold of 25 tons per year.

c. *Expose sensitive receptors to substantial pollutant concentrations?*

Short-Term Diesel Equipment Emissions. Diesel engines emit a complex mixture of air pollutants, mainly composed of gases, vapors and fine particles. The visible emissions in diesel exhaust are known as particulate matter, and consist of carbon particles (soot) and other gases that become visible as they cool. Diesel exhaust particles carry many of the harmful organic compounds and metals present in the exhaust. Exposures to airborne respirable diesel particulate matter can result in respiratory symptoms such as changes in lung function, and cardiovascular disease. In 1998, California identified diesel particulate matter as a toxic air contaminant based on its potential to cause cancer and other adverse health effects.

The major sources of diesel particulate matter are diesel-fueled vehicles such as trucks and buses, construction equipment, portable equipment such as drilling rigs, trains, marine vessels, and power generation. Traffic on U.S. 101 is a principal source of diesel exhaust emissions in the project region.

The following measures are required by state law and would minimize emissions of diesel particulate matter from construction equipment used on the project site:

- All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.

- Fleet owners of mobile construction equipment are subject to the California Air Resource Board (CARB) Regulation for In-Use Off-Road Diesel Vehicles (Title 13, California Code of Regulations (CCR), §2449), the purpose of which is to reduce oxides of nitrogen (NOx), diesel particulate matter, and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation.

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use (On-Road) Heavy-Duty Diesel-Fueled Vehicles (Title 13, CCR, §2025), the purpose of which is to reduce diesel particulate matter, NOx, and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. On-road heavy-duty trucks shall comply with the State On-Road Regulation.

- All commercial off-road and on-road diesel vehicles are subject, respectively, to Title 13, CCR, §2449(d)(3) and §2485, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

The 2010 LRDP EIR includes a health risk assessment that evaluates potential diesel particulate matter exposure impacts resulting from future on-campus construction projects.[1] Based on conservative project-related construction assumptions, the assessment concluded that if an individual on-campus construction project emitted less than 2,365 pounds of diesel particulate matter per year, that project would not result in a significant health risk to receptors near the project site. The LRDP EIR analysis of potential construction site diesel particulate matter emissions evaluated project-specific impacts (individual construction projects) because diesel particulate matter impacts only have a localized effect in the immediate vicinity of the construction site.

The 2010 LRDP EIR includes a table indicating how much construction equipment horsepower can be operated at a particular construction site on a daily basis before 2,365 pounds of diesel particulate matter would be emitted. This table provides information for construction projects of varying durations (one month, three months and one year) and the use of various "tiers" (age) of construction equipment that may be operated on the site. Newer construction equipment can be operated at a construction site for a longer duration before 2,365 pounds of diesel particulate matter is emitted because newer "tiers" of construction equipment have engines that emit less diesel particulate matter than older engines. Table 5.3-3 presents the amount of construction equipment (measured in

[1] The health risk assessment provided by the 2010 LRDP EIR is hereby incorporated by reference. The EIR and health risk assessment analysis are available for review at the following web site: http://lrdp.id.ucsb.edu/?q=documents-and-materials

horsepower) that can be operated on a construction site in a single day over a specified time period without emitting more than 2,365 pounds of diesel particulate matter.

Table 5.3-3
Daily Maximum Diesel Construction Equipment Horsepower to Remain Less than Significant

Emission Standards	One Month Construction Period (horsepower/day)	Three Month Construction Period (horsepower/day)	One Year Construction Period (horsepower/day)
Tier 0 (before model year 1996)	19,687	6,562	1,641
Tier 1 (starting model year 1996-1997)	26,577	8,859	2,215
Tier 2/3 (starting model year 2001-2012)	70,872	23,624	5,906
Tier 4 (Starting model year 2011-2012)	708,719	236,240	59,060

Source: 2010 LRDP EIR

Estimates of peak construction equipment horsepower that would be used at the EMT site are based on information included in the CalEEMod air quality model (Appendix B) and the Project's general construction characteristics. The estimate of peak construction-related equipment horsepower conservatively assumed that all project-related equipment used at the EMT site would operate simultaneously, resulting in a peak day use of 3,638 horsepower. This peak use of diesel-powered construction equipment on the project site would not exceed the combined daily Tier 2/3 horsepower threshold of 5,906 identified by the 2010 LRDP EIR for construction projects with a duration of one year or longer. The Tier 2/3 threshold was used because Tier 1 diesel engines are generally included in model year equipment from 1998 to 2003, and it is unlikely that 20-year old equipment would be extensively used on the project site, if at all. Therefore, the proposed use of equipment to remove onshore EMT facilities would result in **less than significant** health-related effects to receptors adjacent to the project site.

Diesel particulate matter concentrations decrease rapidly as the distance from the emission source increases. For example, along roadways concentrations generally decrease to background levels with 500 to 600 feet (U.S. EPA, 2014). Onshore equipment use and marine vessel operations associated with the removal of the offshore portion of the oil loading pipeline would occur more than 3,200 feet from the nearest sensitive receptors. Due to this substantial separation distance, diesel particulate emissions resulting from the removal of the pipeline would not adversely affect nearby receptors and would not result in or contribute to a potentially significant short-term diesel particulate air emissions impact. Therefore, the potential for diesel particulate matter exposure impacts would be **less than significant.**

d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Heavy equipment use for demolition and grading operations adjacent to sensitive residential receptors has the potential to result in objectionable diesel fume odors. The EMT site, however, is at least 1,700 feet from the nearest residential area (the UCSB Ocean Walk project). This separation distance would substantially reduce the potential for short-term odor impacts. The exposure of oil, sludge, and/or gas to the atmosphere would also have the potential to result in a short-term odor impact, however, those substances were removed from on-site structures in 2020. Therefore, the Project has a **less than significant** potential to result in short-term odor impacts. The long-term restoration of the site to provide wetlands and other native habitats would not have the potential to result in significant odor-related impacts.

5.3.4 Cumulative Impacts

Based on criteria provided by the County of Santa Barbara's *Environmental Thresholds and Guidelines Manual,* if a project's emissions of ozone precursors (NO_X or ROG) exceed the long-term thresholds, or if emissions have not been taken into account in the most recent Clean Air Plan population growth projections, then the project's cumulative air quality impact would be significant. The Project would not cause population growth projections used to prepare the 2022 Clean Air Plan to be exceeded; construction emissions from the Project would not exceed the 25 tons per year threshold of significance; and the Project would not be a substantial source of long-term air emissions. Therefore, the project's cumulative emissions of ozone precursors would be **less than significant**.

Exposure to construction-related diesel particulate emissions is a short-term impact and is limited to the area near the construction site. The only construction project identified in IS/MND Section 1.8 (Cumulative Development) that is located near the EMT site is the North Campus Faculty Housing (Ocean Walk) project. That project is under construction, however, its earth moving phase of project development has been completed, therefore, that project would not be a substantial source of diesel particulate emissions when grading operations occur on the EMT project site.

The Project would be a short-term source of dust emission that would cumulatively contribute to the project area's non-compliance with PM dust emission standards. The proposed Project, along with other development projects in the project region, are required to implement best management practices to reduce dust emissions (mitigation measure AQ-1a.) With the implementation of those measures, the Project's short-term dust emissions would not be cumulatively considerable and would be **less than significant.**

5.3.5 Mitigation Measures

The implementation of the following mitigation measures would reduce the construction-related fugitive dust impacts of the Project to a less than significant level.

Impacts Reduced to a Less Than Significant Level with Proposed Mitigation

IMPACT AQ-1 Dust emissions from project-related grading activities would result in a significant air quality impacts and contribute to existing non-attainment conditions for PM_{10}.

AQ-1a. The following dust control measures are required by the Santa Barbara County APCD. All of these measures shall be implemented at the project site during construction.

1. During construction, use water trucks, sprinkler systems, or dust suppressants in all areas of vehicle movement to prevent dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60 minute period. When using water, this includes wetting down areas as needed but at least once in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.

2. If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.

3. Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.

4. Onsite vehicle speeds shall be no greater than 15 miles per hour when traveling on unpaved surfaces.

5. Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, OR using roll-compaction, OR revegetating, OR by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.

6. Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (>25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by onsite operations from becoming a nuisance or hazard.

7. The contractor or builder shall designate a person or persons to monitor and document the dust control program requirements to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to the start of grading activities.

The dust control mitigation measures listed above are best management practices that reduce short-term dust emission impacts to a less than significant level.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.4 BIOLOGICAL RESOURCES - Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	✓	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	✓	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✓	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	✓	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	✓	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation	☐	☐	✓	☐	☐

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?					

5.4.1 Setting

5.4.1.1 Terrestrial Resources

Multiple biological resource surveys were completed in support of the project within the last decade, dating back to 2012. Results of these surveys are presented in various documents and include a general biological resource assessment and addendum, wetland delineation, and site restoration plan. Information contained in these documents provides the basis for this section. Minor revisions to excerpts from the text of these reports were made for clarification, accuracy (i.e., with respect to scientific nomenclature), and consistency in formatting. References to additional sources of information were added, as appropriate. References for the preparation of this section include:

- Cowardin, Lewis M., Virginia Carter, Francis C. Golet, and Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Office of Biological Services, Fish and Wildlife Service, US Int. Dept. FWS/OBS-79/31.
- InterAct. 2014a. Ellwood Marine Terminal Decommissioning - Demolition and Reclamation Permit Application – Resubmittal – County of Santa Barbara Case No. 13DR-00000-00001. Appendix 4 – Biological Assessment - Ellwood Marine Terminal Decommissioning. Prepared for Venoco, Inc. August, 2014.
- InterAct. 2014b. Ellwood Marine Terminal Decommissioning - Demolition and Reclamation Permit Application – Resubmittal – County of Santa Barbara Case No. 13DR-00000-00001. Appendix 5 – Restoration and Monitoring Plan - Ellwood Marine Terminal Decommissioning. Prepared for Venoco, Inc. August, 2014.
- Kevin Merk Associates, LLC. 2014. Venoco Ellwood Marine Terminal Abandonment Project – Delineation of Waters of the U.S. and State of California. Prepared for Venoco, Inc. July.
- Interact. 2015. Proposed Demolition Plan – Ellwood Marine Terminal Decommissioning. Prepared for Venoco, Inc. May. 2015.
- Kevin Merk Associates, LLC. 2015. Biological Assessment Addendum for the Venoco Ellwood Marine Terminal Decommissioning Project, Santa Barbara County, California. Prepared for Interact. May 13. [Appendix 4]
- Lehman, P. E. 1994. The Birds of Santa Barbara County, California. Vertebrate Museum, University of California. Santa Barbara, California.

- Penfield and Smith. 2014. Preliminary Grading Plan July 23.
- Rindlaub, Katherine. 2013. Ellwood Marine Terminal Conceptual Restoration Plan. Prepared for Interact for submission to Venoco, Inc.
- Stebbins, R. C. and S. M. McGinnis, 2012. Field Guide to Amphibians and Reptiles of California. Revised Edition. University of California Press.

The documents listed above may be reviewed by making prior arrangements with Ms. Shari Hammond, UCSB Campus Planning & Design Capital and Physical Planning, at shari.hammond@ucsb.edu.

Conclusions regarding impacts to plant and animal species of regional concern (e.g., potential for occurrence, breeding/non-breeding) and Environmentally Sensitive Habitat Areas (ESHA) are based on a peer review of technical information by biologist John Storrer, Storrer Environmental Services, LLC. Mr. Storrer reviewed each of the relevant documents for content and accuracy, evaluated data gathering methods for specific resources for conformance with agency-approved survey protocols, and verified descriptive information presented in these reports. The Biological Assessment (InterAct 2014a) also contains a preliminary analysis of potential project related impacts and recommended mitigation. The Biological Assessment impact analysis was peer reviewed (i.e., extent and severity of impact). Adequacy and feasibility of proposed mitigation measures was reviewed and modified or augmented, as deemed appropriate.

The following description of floral and faunal resources is based on field surveys by biologists Katherine Rindlaub and Vince Semonsen conducted in August of 2012 and May of 2014, and by Stantec (formerly Cardno) biologists, and by Kisner Restoration and Ecological Consulting, Inc. (KR&EC) in conjunction with UCSB Cheadle Center biologists. Results of those surveys, including vegetation maps and species inventories, are presented in Rindlaub (2013) and InterAct (2014a) and recent surveys by Stantec and KR&EC (2023).

Flora

Annual Grassland predominates the 17.54-acre developed part of the facility. This vegetation type is dominated by non-native, often naturalized and widely distributed species. Ruderal, disturbed habitat is often a component of annual grassland in which colonizing perennial and annual species provide the majority of the plant cover, often including invasive species. Disturbed annual grassland was found on areas frequently used for parking, mowed for fire protection, and along road edges and berms. Diversity is usually low in these locations. Characteristic species on the site are soft brome (*Bromus hordeaceus*), foxtail (*Hordeum murinum*), Italian ryegrass (*Festuca perennis*), filaree (*Erodium* sp.), cheese-weed *(Malva parviflora),* black mustard *(Brassica nigra)*, bur clover *(Medicago polymorpha*), and Russian thistle (*Salsola tragus*), as well as native telegraph weed *(Heterotheca grandiflora).*

Less disturbed annual grassland is dominated by wild oats *(Avena* sp.*),* ripgut brome *(Bromus diandrus),* soft brome, Mediterranean barley, *(Hordeum marinum* ssp. *gussoneanum),* foxtail, and fescue *(Festuca* sp.*).* Common non-native herbs in this habitat include filaree smooth cat's ear *(Hypochaeris glabra)*, bur clover, fennel (*Foeniculum vulgare*), sand spurrey *(Spergularia villosa)*, and common sow-thistle *(Sonchus oleraceus)*. Native species include blue-eyed grass *(Sisyrinchium bellum),* dove weed *(Croton setigerus),* and fascicled tarweed *(Deinandra fasciculata)* and southern tarplant (*Centromadia parryi* var *australis*). Annual grassland occurs along paths in scrub habitats, and occupies the less frequently disturbed low-lying

land between the chain-link fence and the access road that runs northwest along the western boundary line to the power poles at the angle where the western boundary line turns directly south.

Coyote Brush Scrub is a type of coastal scrub strongly dominated by coyote brush *(Baccharis pilularis* var. *consanguinea).* This habitat occupies a few patches on the property outside the developed area to the east and south. It also surrounds the ballast water pond between the fence and the pampas grass (*Cortaderia* sp.) colony that lines the banks of the pond. Disturbance of this habitat would be limited to removal of pampas grass and/or iceplant (*Carpobrotus* sp,). Coyote brush scrub may indicate poor drainage, as it often occurs in the transitional areas between more diverse coastal scrub and wetland habitats. Associates that also tolerate poor drainage are coast goldenbush *(Isocoma menziesii* ssp*. vernonioides)* and blue-eyed grass (*Sisyrinchium bellum*).

Venturan Coastal Sage Scrub is a more diverse type of coastal scrub that includes coyote brush, but other shrubs also are common, such as California sagebrush *(Artemisia californica)*, poison oak *(Toxicodendron diversilobum)*, Douglas's nightshade *(Solanum douglasii),* monkeyflower *(Diplacus aurantiacus)*, mugwort, *(Artemisia douglasiana)*, lemonade berry *(Rhus integrifolia)*, and purple sage *(Salvia leucophylla).* Needlegrass (*Nassella* sp.) is often found among and beneath the shrubs. This scrub area has recolonized disturbed grassland; a few typical species are sparse or absent, such as purple sage (*Salvia leucophylla*) and coast bush sunflower or brittlebush (*Encelia californica*).

Most of the scrub on the project site west of the ballast water pond is Venturan coastal sage scrub habitat. It is punctuated with patches of pampas grass and iceplant, and a few wattle trees (*Acacia longifolia* and *a. melanoxylon*). Patches of ruderal and annual grassland species are present throughout this habitat and would not be graded.

Southern Coastal Bluff Scrub is generally found along the immediate coast where cliffs limit the encroachment of sand dunes. Typical species include salt scales and saltbushes *(Atriplex* sp.*)*, common morning-glory *(Calystegia macrostegia* ssp. *cyclostegia)*, coast bush sunflower*,* coast cliff-aster *(Malacothrix saxatilis* ssp. *saxatilis)*, coast goldenbush, and non-native iceplants. On the project site, this Southern coastal bluff scrub occurs at the extreme southwest corner of the property and merges with the coastal sage scrub. It would not be disturbed by the project.

Southern Dune Scrub is a short-statured, often succulent assemblage of shrubs, sub-shrubs and herbs that grows in the stabilized back dunes rather than among the shifting sands along the edge of the sandy beach. These are generally plants whose spreading, deep roots anchor the sand. This vegetation type is dominated by California croton *(Croton californicus)*, coast goldenbush*,* bush lupine *(Lupinus chamissonis).* Iceplant is also common in this vegetation. The on-shore portion of the loading line corridor passes through this habitat, along a strip of annual grassland except where the soil is very sandy.

Southern Foredunes are vegetated, often sparsely, with short, often vining suffrutescent plants that display various adaptations that allow them to germinate, establish, and thrive on very exposed, often windy, and unstable substrate. The loading line passes through this habitat, which consist of sand verbenas *(Abronia maritima, A. umbellata),* beach bur *(Ambrosia chamissonis),* dune morning-glory *(Calystegia soldanella),* dune evening-primrose *(Camissoniopsis cheiranthifolia* ssp. *suffruticosa),* saltgrass (*Distichlis spicata*)*,* and often iceplant*.*

Ornamentals occur in a few spots along the access road, and are concentrated near the main project site entrance, where a former homesite was located adjacent to the chain-link fence.. These

include naked ladies *(Amaryllis belladonna),* periwinkle (*Vinca* sp.), myoporum *(Myoporum laetum)*, what appears to be an avocado *(Persea americana)*, a few Mediterranean olives *(Olea europaea)*, and a fan palm *(cf. Washingtonia* sp.*)*. These areas would be restored to native oak woodland.

Fauna. A number of common birds, mammals, and reptiles were seen during a survey completed in 2012 (Rindlaub 2013, InterAct 2014a). Given the relatively remote location of the project site and the open space around the property, large numbers of common animals are expected to forage, breed or cross through the project site. No sensitive species were seen during the survey but three sensitive species may occupy the sandy foredune area, and two more might be found in the ballast water pond but were not observed in a protocol survey series in May 2023.

Mammal signs included raccoon tracks, coyote scat, and Botta's gopher and California ground squirrel burrows. Other wildlife seen included a number of western fence lizards. A total of 21 bird species were seen during the afternoon field survey (InterAct 2014a). In bird surveys conducted by the Cheadle Center every two weeks between February and April 2023, a total of 12 bird species were observed in the eucalyptus windrow surrounding the EMT site and no more than five species in any single period. Raptor observations include two observations of red-shouldered hawk and one turkey vulture.

Special Status Plants and Habitats. Presence or potential for occurrence of special status plants, wildlife, and habitats was a particular focus of the field surveys and background research for the Rindlaub (2013) and InterAct (2014a) reports. These are resources that are afforded special protection through state and federal regulatory statutes (e.g., State and Federal Endangered Species Acts), local land use policies (e.g., 2010 LRDP), and/or are recognized as rare by the regulatory agencies (e.g., California Native Plant Society [CNPS], California Department of Fish and Wildlife [CDFW], United States Fish and Wildlife Services [USFWS]).

Wetlands. Wetlands provide many ecosystem services and functions important to humans, such as flood control, and the environment, such as wildlife habitat. Wetlands vary widely in type, and hold not just water, but living organisms at all levels of the food chain that support many larger creatures, like birds, mammals, and other vertebrates. Many species rely on wetlands at some point in their life cycle, and many others are found only in wetland habitats.

A wetland classification system for the United States was developed by Cowardin et al. (1979) for the USFWS. The hierarchical system is based on geographic and chemical characteristics such as salinity (estuarine, palustrine, marine), seasonality, and bottom character, and on microhabitat, such as floating aquatic, fully submerged, partially submerged (emergent), and unsubmerged.

Seven variously sized areas of Palustrine Emergent Wetland (PE Wetland) on the property were delineated and documented in a wetland delineation report prepared for this project (KMA 2014). Two PE Wetland areas are located on the floor of the northern Oil Storage Tank (#8264) bermed containment area, and another three PE Wetland areas were identified on the floor of the southern Oil Storage Tank (#8265) bermed containment area. These wetlands total 0.77 acres. A small patch of PE Wetland has also developed at the southeast corner of the Fire Water Tank containment area and totals (0.02 acres). The ballast water pond, mapped as Open Water (0.11 acre), is surrounded by PE Wetland (0.20 acre). These are artificially derived features that have formed as a result of runoff being captured and sustained within the containment berms. They are

limited in both plant species diversity and functional value. Nonetheless, they meet California Coastal Commission criteria as wetlands.

Two additional PE Wetland locations were found beyond the project site boundary and along the loading line corridor just below (south of) the project site in an unnamed drainage that continues southeast into a dune slack pond. One is on the slope below the Ballast Pond; the other is beneath the loading line in the bottom of the drainage below the Ballast Pond. No additional wetland habitat was found along the loading line except about 30 linear feet of Marine Intertidal Unconsolidated Bottom, encountered above the mean high tide line. These areas of wetland, open water, and the intertidal are shown on Figures 4 and 5 of the wetland delineation report (KMA 2014), which is attached to this IS/MND as Appendix C. The following tables are reproduced from the wetland delineation report, and show the areal extent of wetlands that may be affected by the demolition and grading ("recontouring") phases of the project.

Table 5.4-1 Summary of Potential Waters of the U.S.[1]

Waters of the U.S.	Total Acreage	Total Linear Feet
Wetlands		
Palustrine Emergent Wetland (includes Ballast Pond fringe and two small areas abutting drainage feature	0.20	n/a
Other Waters		
Open Water (Ballast Pond)	0.11	n/a
Intermittent Stream (Natural Drainage Feature)	0.01	150
Marine Intertidal Unconsolidated Bottom	0.001	n/a
Total Waters of the U.S.	0.32	150

Table 5.4-2 Summary of CCC Wetlands[1]

Waters of the State	Total Acreage	Total Linear Feet
Wetlands		
Palustrine Emergent Wetland (Ballast Pond fringe, tank containment areas, and in Natural Drainage Feature	0.99	n/a
Open Water (Ballast Pond)	0.11	n/a
UCSB Wetland Restoration Area (At Line 96)[2]	0.11	n/a
Natural Drainage Feature	0.03	150
Marine Intertidal Unconsolidated Bottom	0.001	n/a
Total CCC Wetlands	1.24	150

Notes: [1] KMA 2014; [2] UCSB Wetland restoration area located outside lease boundary.

The wetland delineation examined the functional role of Italian ryegrass and saltgrass on the site. Both are classified as a facultative species, or plant species found in wetlands about 50%

of the time, but the other 50% of occurrences are in upland habitats. Tolerance of poor drainage during the growing season enables these species to thrive in both wet and dry years. Considering the wide range of tolerance of these species and observing their appearance on the site in upland and wetland situations, the delineators determined that neither Italian ryegrass nor salt grass function as wetland species in this particular context. (KMA 2014).

Following similar reasoning, the delineators examined the conditions around two individual arroyo willow (*Salix lasiolepis*) shrubs, and a clump of mule fat (*Baccharis salicifolia* ssp. *salicifolia*) that grow near the entrance to the facility. Plants designated FACW grow in wetlands most of the time, but occur in upland habitats occasionally. The delineators observed that these plants were surrounded with upland species, and were not growing in a depression that might foster wetland development. Instead, the shrubs are probably receiving extra water as runoff from the adjacent, paved road. This extra moisture has allowed them to survive, but neither species indicates a wetland on that part of the site (KMA 2014).

Vegetated Wetlands and Waters fall into two broad jurisdictional categories.

1. "Other Waters" and Vegetated Wetlands (meeting three physical wetland criteria) that have a significant nexus, or connection, to waterways that flow to the ocean (Traditional Navigable Waters, (TNW)), or that abut a relatively permanent water (RPW) that is a tributary to a TNW.
2. When only one or two of the physical criteria for vegetated wetland are present, or the vegetation or waters lack a hydrologic surface connection to a TNW nor abuts an RPW with a surface connection to a TNW, there is no "significant nexus."

These categories are under different jurisdictions. Category 1 (above) Waters of the U.S. and Vegetated Wetlands are under the jurisdictional authority of the US Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA), when those agencies concur with the wetland delineation findings and decide to assume jurisdiction. These wetlands are evaluated on a case-by-case basis. Corps jurisdictional areas usually are also waters of the State of California, and would then fall under the jurisdiction of the State of California Regional Water Quality Control Board (RWQCB) and the CDFW.

Waters and wetlands delineated with a significant nexus include the open water in the Ballast Pond and the bulrushes that surround it. Similarly, unnamed drainage and the PE Wetlands within it were determined to have a significant nexus via the dune slack pond, Devereux Slough, and ultimately to the Pacific Ocean. The Marine Intertidal Unconsolidated Bottom waters that edge the Pacific Ocean also are Waters of the United States.

Many incidences of Waters of the U.S. and wetlands that fall into Category 2 (above) lack defined bed-and-banks, drain into uplands, or are self-contained and isolated. These features need meet only one of the three physical criteria that characterize vegetated wetlands.

Agencies that may assume jurisdiction in these conditions include the USFWS, CDFW, the RWQCB, and the California Coastal Commission (CCC).

On the project site, PE Wetlands within all three storage tank containment areas have at least one of the three physical characteristics of wetlands: hydrophytic vegetation, wetland hydrology, and/or hydric soil, and qualify as wetlands under these less exclusive definitions. Lacking a significant nexus to TNW, these PE Wetlands are not under the jurisdiction of the Corps and the EPA under the Clean Water Act.

Generally, a 100-foot protective buffer beyond the wetland boundary is required, where development and activities are limited. The CDFW buffer on streams and drainages is calculated not from the top-of-bank, but extends to the farthest edge of wetland vegetation. When this is composed of large tree canopies, areas of upland vegetation beneath them may be included in the wetland extent.

Wetland preservation is a goal of the site recontouring design (Penfield and Smith 2014). Jurisdictional wetlands that cannot be avoided during site recontouring would be mitigated through creation of wetlands elsewhere on the site.

The oil storage tanks are each seated on a gravel foundation, which would be removed. Re-grading would follow removal of the dense stand of pampas and/or jubata grass that rings the ballast water pond as part of the project Restoration Plan (InterAct 2014b).

Rare Plants. A search of CNPS records for formally listed plants in Santa Barbara County between 0 and 100 meters elevation yielded two species. Santa Barbara jewel-flower (*Caulanthus californicus*) is listed as Endangered by both USFWS and CDFW, and does not occur on the coastal side of the Santa Ynez Mountains. The open water of the ballast water pond provides marginal potential habitat for Gambel's water cress (*Natsturtium gambellii*), listed as Endangered by USFWS and Threatened by CDFW. It was not found. The only special-status plant species recorded from this site is the CNPS-listed Southern tarplant (*Centromadia parryi* ssp. *australis*). A list of sensitive plant species with potential occurrences in the vicinity of the project site is provided in Attachment 1 of the Biological Assessment prepared in support of the Project (Appendix C).

Southern Tarplant *(Centromadia parryi* ssp. *australis)* is CNPS ranked as rare, threatened, or endangered in California and elsewhere (CRPR 1B.1). As such, Southern tarplant is entitled to special consideration under the California Environmental Quality Act (CEQA). On the project site, this species is near its northern distributional limit. Farther south it typically grows on the margins of salt marshes and lagoons. It is classified as a facultative wetland species (FACW) by the Corps (2014), defined as a plant species found in wetlands most of the time (67-99%). The loss of so much of coastal wetland habitat in Southern California is the primary reason for its relative rarity today.

Southern tarplant is a summer-flowering annual in the sunflower family with spiny bracts surrounding the yellow-flowered heads. The anthers are black. In the Ellwood area, on Storke Ranch, and on the old Amino Oil property west of the Baccara Resort, it occurs in vernally wet depressions, and along roadsides where compaction results in limited drainage and small depressions capture runoff. Extensive populations of this species have been restored on UCSB campus in the San Clemente restoration area and on the adjacent North Campus Open Space and Ocean Walk housing restoration areas where it grows on clay soils where shallow wetlands perch for short periods of time in the winter.

Seeds of many native plants are capable of prolonged dormancy that prevents germination in years when site conditions are unlikely to promote successful growth to maturity. Often germination is inhibited by a combination of environmental factors (such as rainfall amount, winter minimum temperatures, etc.). Dormancy control can also be a function of a thick seed coat, which provides protection for the embryo it contains. Risks of handling seed with mechanical equipment include breakage, but just abrading the seed coat can override its dormancy control. Relocating

seeds with their soil (when dry) can promote a flush of germination that replenishes the soil seed bank the following year.

In 2014, Southern tarplant was found scattered in the flat bottoms of the bermed areas of both oil tanks, and in one low area adjacent to the water tank. A generous estimate of the occupied area within the tank berms is 0.2-acre. Occasional plants were seen on the parking area and along infrequently used roads. Southern tarplant is also sparsely scattered along part of the onshore loading line in annual grassland habitat between the coyote brush scrub and the sand dune habitats. A small, additional patch of Southern tarplant occurs around the small wetland across the perimeter road and across from the existing dirt access road to the west gate.

Coast Live Oak *(Quercus agrifolia*) is afforded protections through UCSB LRDP policies. A single, mature coast live oak grows among the conifers and eucalyptus at the entrance to the fenced project site. This tree would be preserved.

As required by 2010 LRDP policies, new development shall be sited a minimum of 5 feet from the outer edge of the tree's canopy dripline. If the tree is removed or permanently damaged from earthmoving activities, the required replacement ratio is 10:1 for each tree removed or unlikely to survive. Between 2014 and 2017, as part of UCSB's ongoing restoration efforts, approximately 528 coast live oak saplings were planted on the COPR terrace area east of the project site that slopes gently toward Devereux Slough. Approximately 407 of the planted oak trees have survived.

Native Perennial Grassland is protected and is recognized as ESHA by the 2010 LRDP. At the project site, this community is dominated by creeping wild-rye (*Elymus triticoides*), some areas of saltgrass, and a few spots of blue wild-rye (*Elymus glaucus*) occur on the lease property. These grasslands may be afforded local protection because they are part of the grassland system that includes Ellwood Mesa. Saltgrass occurs on the floors of the storage tank containment areas, and in a few additional places on the western side of the property outside the regrading area. Blue wild-rye was found adjacent to the fence and ballast water tank (within the project activities area), and creeping wild-rye was found only on the western part of the site (outside the regrading area).

Special-Status Wildlife. A number of sensitive wildlife species are known or likely to occur in the vicinity of the project site and are described below. These include sensitive or listed species: globose dune beetle (*Coelus globosus*), Monarch butterfly (*Danaus plexippus*), California red-legged frog (*Rana draytoni*), California legless lizard (*Anniella pulchra*), Southwestern pond turtle (*Actinemys pallida*), western snowy plover (*Charadrius alexandrinus nivosus*), and California least tern (*Sternula antillarum browni*). In addition, raptors, nesting native birds, and bats are all potentially or known to be present at the project site and receive special-status protection as described below.

Globose dune beetle *(Coelus globosus)* is a Category 2 candidate for federal listing as threatened or endangered, primarily due to loss of habitat and the invasion of iceplant and European beachgrass (*Ammophila arenaria*). This animal is a small (0.25-inch long) beetle that is found in the foredunes just back from the open beach. Globose dune beetles spend most of their time just underneath the surface of the sand burrowing down to feed on native plant roots and detritus. They stay fairly close to the surface and are generally found underneath native vegetation. Use of a sieve or fine mesh screen can easily capture the animals. They are known to occur up the coast near the Baccara Resort and are expected to utilize the foredunes near the loading line.

Monarch Butterfly *(Danaus plexippus)* is a California Species of Special Concern. Monarch butterflies are well known from the Goleta area, with one of the largest overwintering populations utilizing the eucalyptus grove on the Ellwood Mesa. This aggregation is found approximately 0.6 mile to the northwest of the project site. Monarchs have not been documented overwintering in the blue gum and conifer windrow and are not expected to congregate there because it does not provide the sheltered microclimate required by the butterflies.

California Red-Legged Frog (*Rana draytonii) is* federally-listed as threatened and is a California Species of Special Concern. The California red-legged frog (CRLF) has been eliminated from 75% of its former range but seems to be doing well within the County. The CRLF is chiefly a pond frog that frequents marshes, streams, lakes, reservoirs, ponds, and other usually permanent sources of water where cattails, bulrushes, or other plants provide dense riparian cover (Stebbins 2012). They have also been documented breeding in vernal pools and ephemeral drainages, eventually dispersing into damp habitats as the water dries up. CRLFs can migrate considerable distances, with documented travel of up to 1.8 miles, as recorded from the Guadalupe dunes area (V. Semonsen personal experience).

Breeding populations of CRLFs are known from Tecolote and Bell Canyon Creeks approximately 1.9 miles to the northwest of the project property, and individuals have been documented from the main stem of Devereux Creek between the Union Pacific Railroad tracks and Highway 101. At the time of the site survey water was noted within the ballast water pond and a search of historic Google Earth photos shows it to be a perennial pool which holds water at all times of the year. This pond along with the dune slack pond located just south of the facility is expected to attract CRLFs. Surveys for CRLF were conducted in April and May, 2023 by KR&EC. No indications of adults or tadpoles in any of the wetlands onsite were found.

California Legless Lizard (*Anniella pulchra)* is a California Species of Special Concern. Legless lizards live mostly underground, burrowing in loose sandy soil. They are most active during the morning and evening when they forage beneath the surface of loose soil or leaf litter which has been warmed by the sun, although they sometimes come to the surface at dusk and at night. They can be found by gently raking through the loose soil and leaf litter.

According to local *Anniella* expert Larry Hunt (personal communication with V. Semonsen, July 18, 2014), legless lizards were known to occur historically within the older stabilized/vegetated dunes near the project property. However, Dr. Hunt has surveyed suitable habitat along that portion of the coast with negative results. If they are to be found within the project area of affect, they are only expected to occur along the loading line near the beach.

Southwestern Pond Turtle **(***Actinemys pallida***)** is a California Species of Special Concern. The southern western pond turtle is semi-aquatic and diurnal, most often seen basking on rocks, logs, cattail mats, and along exposed river banks. They occur in a variety of habitats (woodlands, forests, grasslands) and in a wide range of aquatic environments including lakes, ponds, rivers, streams, creeks, marshes, and irrigation ditches. According to Stebbins (2012) the turtles have seen a decline in their home range of between 75 to 80%. This is largely due to habitat loss and fragmentation.

Southwestern pond turtles are known to occur in a number of ponds and streams throughout Goleta including Lake Los Carneros located 2.3 miles to the northeast. Southern western pond turtles have been observed in the ballast pond on site and in the "dune swale pond" on the Coal Oil Point Reserve, 700 feet south of the Site perimeter (Storrer, unpublished field notes). Surveys

were conducted in April and May 2023 and preliminary data indicates southwestern pond turtles are not present in the ballast pond (KR&EC, personal communication May 2023).

Western Snowy Plover (*Charadrius nivosus nivosus*) is a federally-listed (threatened) taxon. The snowy plover is a small shorebird that nests and roosts along the coastal strand and adjacent foredunes. A breeding colony of snowy plovers has succeeded in reestablishing at the Coal Oil Point Reserve, just down the coast from the project property. The loading line reaches the beach at the northern end of the nesting colony so plovers could be found nesting or roosting near the area of impact.

The shoreline at Coal Oil Point lies within Critical Habitat Unit CA 34, as designated by the USFWS and all work will incorporate biologists trained to spot western snowy plovers, and be planned for non-breeding periods.

California Least Tern (*Sternula antillarum browni*) nesting colonies are listed as endangered under the state and federal Endangered Species Acts. This migratory marine bird arrives in the Southern California Region in late April to sandy beaches where it roosts and nests. The birds feed on small fish in the brackish water habitats of estuaries, river mouths, and lagoon. Availability of suitable nesting sites has steadily declined as human activity and development along the shoreline has expanded. Least terns are occasionally seen in late summer along the South Coast of the County, most frequently around Sandyland Slough, the Santa Barbara Harbor, USCB Lagoon and Devereux Slough (Lehman 1994). Within the past few years, a few of these birds have nested near the project site (C. Sandoval, personal communication with V. Semonsen).

Various Raptors, including great-horned owl (*Bubo virginianus*), white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*) are protected under the Migratory Bird Treaty Act and California Fish and Game Code, Section 3503.5. The white-tailed kite is also afforded "fully protected" status under the California Fish and Game Code.

These five species of raptors are known to nest and forage in and around the project property. The great-horned owl, white-tailed kite, Cooper's hawk, and red-tailed hawk have historically (1990s) nested within the blue gum/conifer windrow, but no nesting activity was seen during the May 21, 2012 site visit (Rindlaub 2013), and very little nesting has been observed in the past 20 years. Several large stick nests were seen within the windrow and were presumed to be raptor nests. Many of these birds return year-after-year to the same nest, so some level of raptor nesting is to be expected within the windrow.

Native Birds are protected under the Federal Migratory Bird Treaty Act and California Fish and Game Code. A number of nesting birds were observed during the May 21, 2012 field survey, including mallards and red-winged blackbirds in the bulrush around the ballast water pond. House finches and house wrens were observed nesting in the pump house and control building. A number of other common bird species are expected to be nesting on the project property.

Bats may roost and/or forage within the project property including the Pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus towsendii*), Western red bat (*Lasiurus blossevillii*), and Yuma myotis (*Myotis yumanensis*). The pallid bat and the western red bat are known to roost in buildings, and all but pallid bat are dependent on regular water sources. It is unlikely that bats would be using metal buildings because of extreme temperature swings (P. Collins, 2014 personal communication with V. Semonsen).

2010 LRDP Requirements. 2010 LRDP Policy ESH-28 requires trees that provide raptor habitat to be replaced at 3:1 ratio. Ornamental, non-native trees are required to be replaced at 1:1 ratio. The eucalyptus windrow at the EMT site does not currently support raptor habitat and are non-native trees and a 1:1 replacement would be required. Nonetheless, since the eucalyptus have supported raptor nesting and are within an Open Space land use designation, a 3:1 replacement ratio will be applied.

2010 LRDP Policy ESH-46 address habitat provided at the EMT site and prohibits the removal of the on-site eucalyptus trees unless phased restoration is implemented ensuring no loss of available raptor nesting habitat. Further, biological surveys demonstrating that replacement trees (habitat) have been successfully used for nesting by raptors are required prior to removing the eucalyptus trees.

5.4.1.2 Marine Resources

The offshore project area is located within the larger biogeographic zone known as the Southern California Bight (SCB), which encompasses approximately 22,000 square miles with boundaries that span from Point Conception, California, in the north to Cabo Colnett, Baja California, in the south. The SCB has a high upwelling index, (upward flowing current) between April and August, but geostrophic or wind-driven flows may occur year round (Bonnell and Dailey, 1993). The Project site is not located within federal or State Marine Protected Areas, however, it is adjacent to the Channel Island National Marine Sanctuary, within the Campus Point State Marine Conservation Area, and near the Naples State Marine Conservation Area.

The offshore project site can be described in terms of three major habitat areas within the Santa Barbara Channel: open ocean, seafloor, and shoreline. each of these three biological habitats (open ocean, seafloor and shoreline) is exceptionally diverse and productive. The warm and cool currents that combine within the Channel bring seasonally migrant marine species from disparate zoogeographic provinces to augment year-round resident populations. Many of the over-600 fish species reported along the Pacific Outer Continental Shelf (OCS) region occur within the Channel. Productive shellfish and squid fisheries have also developed in the region. Seventy-five percent of the kelp ecosystems of the Southern California Bight exist within the nearshore waters of the Channel Islands. Eelgrass (Zostera spp.) beds, considered to be one of the most productive habitat types found on soft-bottom substrate, occur along the protected shoreline of the Channel. Every year over 27 species of whales and dolphins visit or inhabit the Santa Barbara Channel region, including blue whales (Balaenoptera musculus), humpback whales (Megaptera novaeangliae), and sei whales (Balaenoptera borealis). Several other species of marine mammals use the shores of the Santa Barbara Channel, particularly the Channel Islands and rocky outcroppings, as haul-outs and rookeries. Finally, the seabird diversity within the Channel is dependent on the many important breeding grounds and colonies that are located there.

Descriptions of intertidal and subtidal habitats and biota provided below were derived mainly from existing literature, and supplemented by information collected during a geophysical survey performed by Fugro West, Inc. (Fugro) in 2010.

Intertidal Habitats and Biota. The intertidal zone is a dynamic environment characterized in part by daily tidal fluctuations (leading to high concentrations of sunlight, and periods of aerial exposure) and wave forces. Organisms residing within the intertidal zone are

typified by hardy species that are capable of withstanding stresses associated with waves and daily tidal fluxes. Areas with hard substrate within the intertidal zone (i.e., rocky intertidal) can be areas of rich species diversity and abundance. Hard substrate provides habitat structure and a permanent surface that algae, benthic, and sessile organisms may attach to, which allows for the establishment of long-lived complex communities.

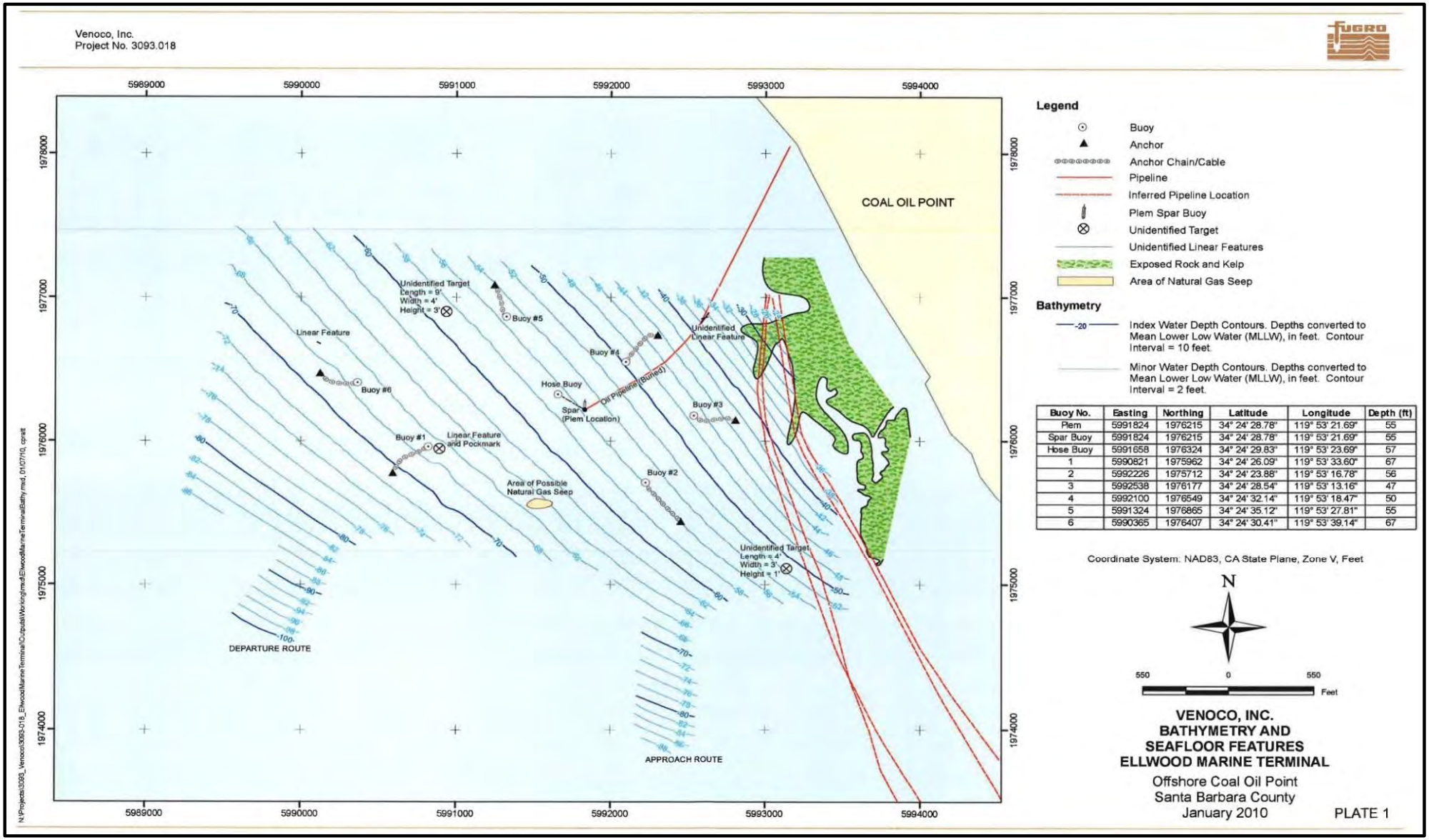
The intertidal zone within the Project site consists of sandy beaches. As indicated above, relatively few specialized species live in this dynamic habitat. Commonly documented species include crustaceans such as sand crab (*Emerita analoga*) and the spiny mole crab (*Blephoripoda occidentalis*), and enchinoderms, arthropods, polychaetes, and mollusks. The California grunion (*Leuresthes tenuis*) is also a species that could occur in the Project area, with a range that extends from Point Conception, California, to Point Abreojos, Baja California. Although this species inhabits nearshore waters (from the surf to a depth of 60 feet), they leave the water at night to spawn on beaches during the spring and summer months (CDFW, 2016).

In addition, many bird species rely on intertidal habitats as places to rest or forage for food. Bird species that have a potential to occur within the project include but are not limited to western snowy plover (*Charadrius alexandrines nivosus*), western grebe (*Aechmophorus occidentalis*), Cassin's auklet (*Ptychoramphus aleuticus*), surf scoter (*Melanitta perspicillata*), cormorants, and California brown pelicans (*Pelecanus occidentalis*).

Subtidal Habitats and Biota. As with the intertidal zone, the sedimentary habitat continues offshore along the pipeline corridor, Soft substrate habitats within the subtidal zone typically have a lower diversity and abundance of species than those areas with hard substrate. However, the sandy subtidal environments support communities of organisms that are adapted to, and in some cases unique to, this environment, and as such are important to marine ecosystems. Organisms typically found in sandy subtidal environments include, but are not limited to: tube worms (*Diopatra ornate*), sand dollars (*Dendraster excentricus*), and various species of crabs, sea stars, snails, bottom dwelling fishes, etc. The majority of the marine terminal components are located with soft substrate habitat (refer to Figure 5.4-1) and are therefore expected to be dominated by soft substrate species.

Abalone are known to inhabit nearshore rocky reef habitats along the southern California coast and are occasionally observed on manmade submarine structures such as moorings and pipelines. Black and white abalone (*Haliotis cracherodii* and *H. sorenseni*) are both federally endangered species protected under Federal Endangered Species Act (FESA) (See Offshore Special Status Species below). Other abalone species that could be found in the study area include red (*H. rufescens*), pink (*H. corrugate*), green (*H. fulgens*), and pinto (*H. kamtschatkana*).

Subtidal areas containing hard substrate typically support a wide variety of organisms. In subtidal areas off the southern California coast where hard/rocky substrate is available, giant kelp (*Macrocystis pyrifera*) communities (i.e., kelp forests) are often present. Kelp forests are an important part of the marine ecosystem in that they provide habitat structure and substrate surfaces for many epibiotic, benthic and sessile organisms, and provide food, shelter, and nursery habitat for migratory and resident species of fish, marine mammals, and invertebrates (NOAA, 2015). During the Fugro geophysical survey of the terminal, hard bottom habitat and kelp was identified to the south east of the existing loading pipeline (refer to Figure 5.4-1).



Buoy No.	Easting	Northing	Latitude	Longitude	Depth (ft)
Plem	5991824	1976215	34° 24' 28.78"	119° 53' 21.69"	55
Spar Buoy	5991824	1976215	34° 24' 28.78"	119° 53' 21.69"	55
Hose Buoy	5991658	1976324	34° 24' 29.83"	119° 53' 23.69"	57
1	5990821	1975962	34° 24' 26.09"	119° 53' 33.60"	67
2	5992226	1975712	34° 24' 23.88"	119° 53' 16.78"	56
3	5992538	1976177	34° 24' 28.54"	119° 53' 13.16"	47
4	5992100	1976549	34° 24' 32.14"	119° 53' 18.47"	50
5	5991324	1976865	34° 24' 35.12"	119° 53' 27.81"	55
6	5990365	1976407	34° 24' 30.41"	119° 53' 39.14"	67

University of California, Santa Barbara

Ellwood Marine Terminal Demolition and Restoration Project

Figure 5.4-1

Bathymetry and Seafloor Features

Seagrasses. Two important seagrass species found off the California coast are eelgrass (*Zostera* spp.) and surf grass (*Phyllospadix* spp.). These grasses are vascular plants, not algae, forming dense beds of leafy shoots year-round in the lower intertidal and subtidal areas. Eelgrass is found on soft-bottom substrates in intertidal and shallow subtidal areas of estuaries and in some nearshore areas. Eelgrass provides shelter for invertebrates and juvenile fish, contributes to the detrital food chain, and is considered a critical habitat for some vertebrate and invertebrate speciesSurf grass occurs on hard-bottom substrates along higher energy coastlines. Studies have shown seagrass beds to be among the areas of highest primary productivity in the world.

Surf grass is characteristically the predominant plant in this low intertidal/shallow subtidal zone, providing important refuge and nursery habitat for invertebrates and fishes (Stewart and Myers, 1980). The width of the surf grass zone and patch sizes of surf grass are largely dependent on the slope of the shoreline, topographical relief, and substrate availability. In addition to growing on rocks, both species of surfgrass grow in sandy areas, attached to rocks buried beneath the sand, and the rhizomes and dense blades, in turn, stabilize the sand. Although no quantitative seagrass mapping of the area has been completed to date, the water depths and seafloor bottom within the Project site may be conducive to these seagrasses.

Mammals and Reptiles. A total of 28 marine mammal species is known to occur offshore of Southern California, as noted in Table 5.4-3. These include 22 cetacean (whales and dolphins) and five pinniped (seals and sea lions) species. Many of these species are year-round residents. Others occur on only a seasonal or transient basis. Four species of marine turtle have been recorded, though these sightings are rare.

Regionally Occurring Sensitive Offshore Habitats and Biota. Based on information obtained from a preliminary desktop review, several habitats occur in the region that are afforded protection by Federal, State, or local authority, and may support special-status plants and wildlife. For the purpose of this section, sensitive habitats and species include the following:

- Critical Habitat and Species under the Federal Endangered Species Act (FESA), and protected by the United Fish and Wildlife Services (USFWS) and/or National Marine Fisheries Service (NMFS);
- Sensitive habitats and Species under the California Endangered Species Act (CESA) and protected by the California Department of Fish and Wildlife (CDFW) and/or local agencies; Sensitive habitats and Species under the Magnuson Fishery Conservation and Management Act protected by NMFS;
- Marine Protected Areas (MPAs) afforded protection by the CDFW under the Marine Life Protection Act;
- Species under the Marine Mammal Protection Act (MMPA) protected by NMFS;
- Sensitive habitats protected by the County of Santa Barbara; and/or
- Rare habitats protected by local professional organizations and/or the scientific community.

Table 5.4-3. California Marine Wildlife Species and Periods of Occurrence within Southern California (California/Mexico Border to Point Conception)

Family Common Name	Month of Occurrence[1] J	F	M	A	M	J	J	A	S	O	N	D
REPTILES												
Cryptodira												
Olive ridley turtle (E)[2]												
Green turtle (E)[2]												
Leatherback turtle (E)[2]												
Loggerhead turtle (T)[2]												
MAMMALS												
Mysticeti												
California gray whale												
Blue whale (E)												
Fin whale (E)												
Humpback whale (E)												
Minke whale												
Sei whale (E)												
North Pacific right whale (E)												
Odontoceti												
Dall's porpoise												
Short-beaked common dolphin												
Long-beaked common dolphin												
Pacific white-sided dolphin												
Risso's dolphin												
Short-finned pilot whale												
Bottlenose dolphin												
Northern right whale dolphin												
Sperm whale												
Dwarf sperm whale												
Pygmy sperm whale												
Baird's beaked whale												
Cuvier's beaked whale												
Mesoplodont beaked whales												
Killer whale												
Pinnipedia												
Northern fur seal[3]												
Guadalupe fur seal												
California sea lion												
Northern elephant seal[4]												
Pacific harbor seal												
Fissipedia												
Southern sea otter (T)[5]												

Rare with uniform distribution

Not expected to occur due to seasonal distribution

More likely to occur due to seasonal distribution

Present Year Round

(E) Federally listed endangered species.
(T) Federally listed threatened species.

(1)	Where seasonal differences occur, individuals may also be found in the "off" season. Also, depending on the species, the numbers of abundant animals present in their "off" season may be greater than the numbers of less common animals in their "on" season.
(2)	Only a small percent occurs over continental shelf (except near San Miguel rookery, May-November).
(3)	Common near land during winter breeding season and spring molting season.
(4)	Only nearshore (diving limit 100 feet).

Sources: Bonnell and Dailey, 1993; NMFS, 2015 and 2016d; and NCCOS, 2007; and Allen et al., 2011.

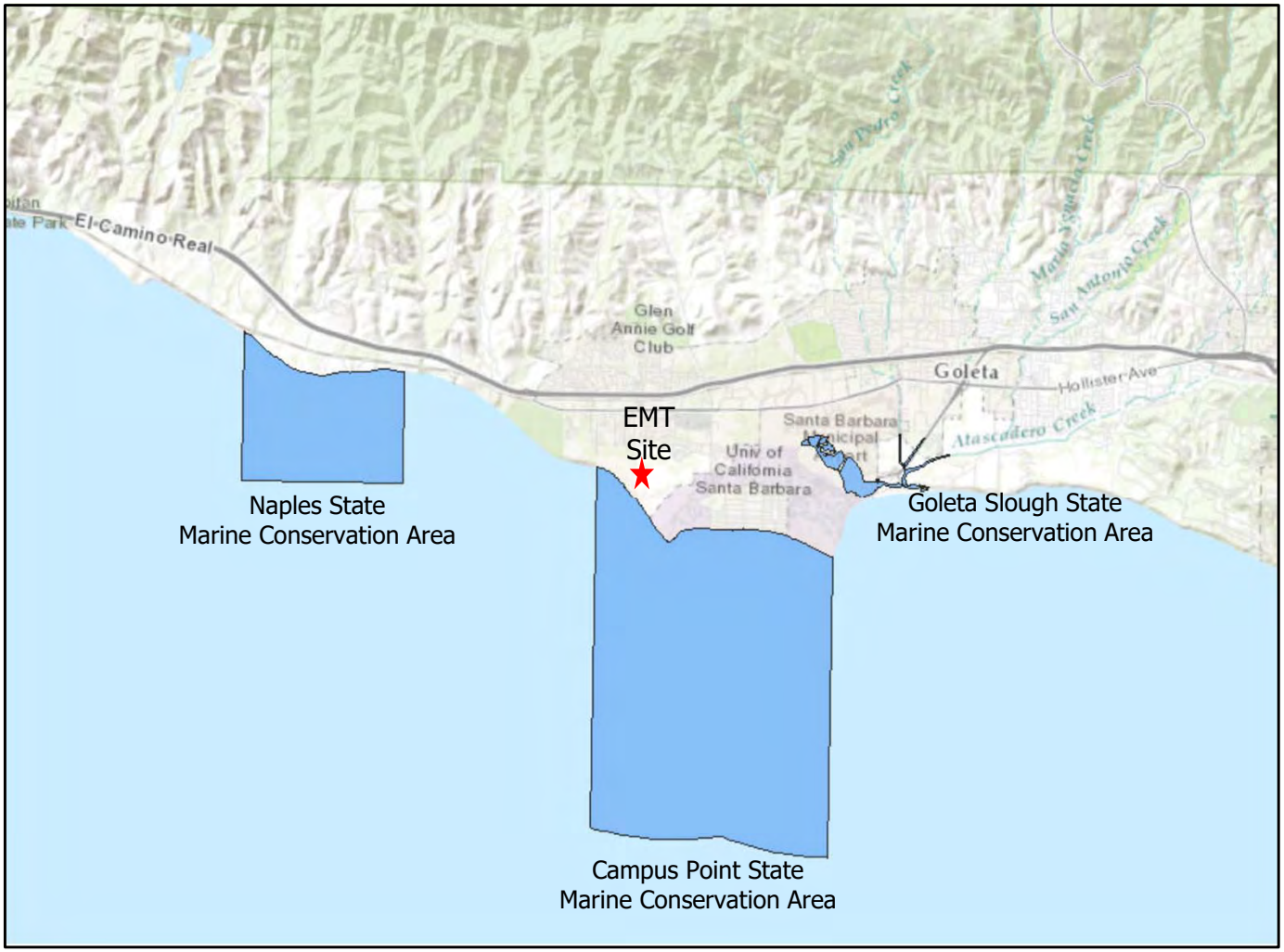
Essential Fish Habitat and Habitats of Particular Concern. Under Section 305 (b) (2) of the Magnuson Fishery Conservation and Management Act (16 USC 1801 et seq.) as amended by the Sustainable Fisheries Act in 1996, Federal agencies must consult with the Secretary of Commerce on any actions that may adversely affect Essential Fish Habitat (EFH). The Department of Commerce published a final rule (50 CFR Part 600) in the Federal Register (January 17, 2002, Vol. 67, No. 12) that detailed the procedures under which Federal agencies would fulfill their consultation requirements. Congress defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC 1802(10)). The EFH regulations further interpret the EFH definition as follows. "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate. "Substrate" includes sediment, hardbottom, structures underlying the waters, and associated biological communities. "Necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem. "Spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle.

The National Oceanic and Atmospheric Administration (NOAA) identifies four Habitats of Particular Concern (HAPC) within the southern California area: estuaries, rocky reefs, seagrass beds, and kelp beds. HAPCs are defined as discrete subsets of EFH that provide important ecological functions and/or are especially vulnerable to degradation (NOAA, 2015a). The HAPC designation does not necessarily confer additional protection or restrictions upon an area, but it helps prioritize and focus conservation efforts. Although these habitats are particularly important for healthy fish populations, other EFH areas that provide suitable habitat functions are also necessary to support and maintain sustainable fisheries and a healthy ecosystem (NOAA, 2015b).

A rocky reef and kelp bed HAPC has been identified to the southeast of the project area. Although no quantitative seagrass mapping of the area has been completed to date, the water depths and seafloor bottom within the Project site may be conducive to these seagrasses which are typical to find along Santa Barbara County beaches; therefore, there is a moderate likelihood for them to occur.

Marine Protected Areas (MPAs) are afforded protection with the CDFW under the Marine Life Protection Act. The following designations are managed within the West Coast MPA network: State Marine Reserve (SMR), State Marine Conservation Area (SMCA), and State Marine Recreational Management Area (SMRMA). The Project site is located within the Campus Point State Marine Conservation Area and is approximately 2.65 miles east of Naples State Marine Conservation Area (refer to Figure 5.4-2).

Offshore Special-Status Species. For the purpose of this section, special-status species are animal taxa listed or proposed for listing as Threatened or Endangered under FESA, CESA, Federal or State Species of Special Concern and candidates for listing, and/or protected under the MMPA.



University of California, Santa Barbara

Ellwood Marine Terminal Demolition and Restoration Project

Figure 5.4-2

State Marine Conservation Areas

Invertebrates

Endangered Abalone Species. Although all abalone along the California coastline are considered depleted and no commercial or recreational harvesting of abalone is allowed south of San Francisco, two species, the white (*Haliotis sorenseni)* and black (*H. cracherodii*), are listed as endangered. Unlike more mobile animals, abalone are slow-moving and are confined to a small area for their entire life. They reproduce by broadcasting their eggs and sperm into the seawater. For fertilization to occur, the spawners need to be within 3 feet (ft) (0.9 meter [m]) of a member of the opposite sex.

In the 1990s, less than one white abalone per acre could be found in surveys conducted by agency biologists. The rarity of this species within its historical center of abundance prompted the NMFS to list it as a candidate species under the FESA in 1997. In 2001, the white abalone became the first marine invertebrate to receive Federal protection as an endangered species. The white abalone is a marine, rocky benthic, herbivorous, broadcast spawning gastropod. The shell is oval-shaped, very thin and deep. They can be up to 10 inches (in) (25 centimeters [cm]), but are usually 5 to 8 in (13 to 20 cm). This species usually dwells in deep waters from 80 to over 200 ft (24.4 to 60.9 m) from Point Conception (southern California) southward to Baja California. White abalone were reported to be more common along the mainland coast at the northern end of the range, while in the mid-portion of the California range it was more common on the islands (especially San Clemente and Santa Catalina Islands) (NMFS, 2016a).

This species has occurred in shallower depths near its northernmost limit (Hobday and Tegner, 2000). Specifically, localized mainland areas in the Coal Oil Point region, west of Santa Barbara, have supported white abalone in water depths less than 60 ft (18.3 m). Speculation concerning reasons for its presence in shallow water includes competition with red abalone (*H. rufescens*) and/or a localized decrease in predation from sea otters (as reported in Hobday and Tegner, 2000). The vertical distribution limits may also be controlled by water temperature. White abalone are found in open low relief rock or boulder habitat surrounded by sand (with a variety of algal/invertebrate cover), usually near the rock-sand interface (Hobday and Tegner, 2000; Lafferty, 2001; NMFS, 2016c). Sand may be important in forming channels for the movement and concentration of algal drift, although white abalone are reported to feed less on drift material than congeneric species (Hobday and Tegner, 2000). Common algae in the white abalone habitat include the kelps (*Laminaria farlowii, Agarum fimbriatum*, *Macrocystis pyrifera*), and a variety of red algae. White abalone may live dozens of years and attain a length of about 10 in (25 cm). The designation of critical habitat for the white abalone was determined to not be prudent as it could increase the likelihood of poaching (NMFS, 2016a).

In January 2009, the black abalone was listed as endangered under the FESA. In October 2011, NMFS published the critical habitat for that species (NMFS, 2016b). As a result of disease, most black abalone populations in Southern California have declined by 90 to 99 percent since the late 1980s and have fallen below estimated population densities necessary for recruitment success. The black abalone is a shallow-living marine gastropod with a smooth, circular, and black to slate blue colored univalve shell and a muscular foot that allows the animal to clamp tightly to rocky surfaces without being dislodged by wave action. Black abalone generally inhabit coastal and offshore island intertidal habitats on exposed rocky shores from Crescent City, California, to southern Baja California, Mexico. Today the species' constricted range occurs from Point Arena,

California, to Bahia Tortugas, Mexico, and it is rarely found north of San Francisco. Black abalone range vertically from the high intertidal zone to a depth of 20 ft (6.1 m) and are typically found in middle intertidal zones. The Project is not within any of the 12 critical habitat zones for this species designated by NMFS (2016b).

Fish

Bocaccio. Bocaccio (*Sebastes paucispinis)* is listed as a NOAA species of concern. Bocaccio occurs from Punta Blanca in Baja California to Kruzof Island and Kodiak Island, Alaska. They can occur from shallow water to over 1,000 ft (304.8 m) deep. Bocaccio can occur over rocky-reefs and soft bottom, but there is strong site fidelity to rocky bottoms and outcroppings. Juveniles and subadults are more common in shallow water, as in the Project area, but are associated with rocky reefs, kelp canopies, and artificial structures, such as piers and oil platforms (NMFS, 2016c).

Cowcod. Cowcod (*Sebastes levis)* is listed as a NOAA species of concern. Cowcod is a rockfish species that occurs from Ranger Bank and Guadalupe Island in Baja California to approximately Usal, California, occurring at depths from 60 to 1,200 ft (18.3 to 365.8 m). They prefer high-relief rocky habitat, and oil platforms have become important habitat for the species (NMFS, 2016c). Cowcod habitat does occur within the Project area, but their presence is unlikely due to the lack of high relief rocky reefs.

Birds

Ashy Storm Petrel. The Ashy Storm Petrel (*Oceanodroma homochroa)* is a CDFW species of special concern. It breeds on islands from northern California south to northern Baja California. It is a pelagic species (spends most of the time offshore) and comes ashore only to breed. The largest known colonies occur at the South Farallon, Santa Barbara, Prince, and Santa Cruz Islands (Shuford et al., 2008). No breeding occurs within the Project area, and their likelihood for occurrence is low.

Marine Turtles and Mammals

All marine mammals are protected under the 1972 Federal MMPA, and all sea turtles in U.S. waters are listed under the FESA. Table 5. 4-3 lists the species that could be encountered within the project area and their occurrences and distribution throughout southern California. It is important to note, where seasonal differences occur, individuals may also be found within the area during the "off" season. Also, depending on the species, the numbers of abundant animals present in their "off" season may be greater than the numbers of less common animals in their "on" season.

General distribution and species-specific information is provided in the following paragraphs for marine turtles and mammals that are listed as threatened or endangered under FESA, CESA, and/or Federal or State Species of Special Concern and candidates for listing.

Marine Turtles

Olive ridley turtle. The olive ridley turtle (*Lepidochelys olivacea*) is listed as a Federally endangered species. The olive ridley turtle is distributed circum-globally and is regarded as the most abundant sea turtle in the world. Within the east Pacific, the normal range of Pacific Ridley

sea turtles is from Southern California to Northern Chile (NMFS, 2016d). The olive ridley sea turtle is omnivorous, feeding on fish, crabs, shellfish, jellyfish, sea grasses and algae. Major nesting beaches are located on the Pacific coasts of Mexico and Costa Rica (NMFS, 2016d). According to the Marine Turtle Specialist Group of the International Union for Conservation of Nature (IUCN), there has been a 50 percent reduction in overall population size since the 1960's.

Green turtle. The green turtle (*Chelonia mydas*) is listed as a Federally endangered species. Green turtles generally occur worldwide in waters with temperatures above 20° C (68° F). In the eastern North Pacific, green turtles have been sighted from Baja California to southern Alaska, but most commonly occur from San Diego south. There are no known nesting sites along the west coast of the U.S., and the only known nesting location in the continental U.S. is on the east coast of Florida. Green turtles are sighted year-round in marine waters off the southern California coast, with the highest concentrations occurring during July through September. Green turtles are omnivores, feeding primarily on algae and sea grasses (NMFS, 2016d).

Leatherback turtle. The leatherback turtle (*Dermochelys coriacea*) is listed as a Federally endangered species. Leatherback turtles are the most common sea turtle off the west coast of the U.S. Leatherback turtles have been sighted as far north as Alaska and as far south as Chile. Their extensive latitudinal range is due to their ability to maintain warmer body temperatures in colder waters. Off the U.S. west coast, leatherback turtles are most abundant during the summer and fall months (NMFS, 2012). It has been noticed that their appearance off the U.S. west coast is "two pronged" with sightings occurring in northern California, Oregon, Washington, and southern California, with few sighting occurring along the intermediate coastline. In southern California waters, leatherback turtles are most common in years when water temperatures are above normal (NMFS, 2016d).

Critical habitat was proposed in 2010, and a Final Rule was issued in the Federal Register on January 2012 for the eastern Pacific Ocean population (NMFS, 2012). Critical habitat extends to a depth of 262 feet from the ocean surface and out to the 9,843 foot isobath. The project area is not within designated critical habitat.

Loggerhead turtle. The loggerhead turtle (*Caretta caretta*) is listed as a Federally threatened species. Loggerhead turtles primarily occur in subtropical to temperate waters and are generally found over the continental shelf. Loggerhead sea turtles are omnivorous and feed on a wide variety of marine life including shellfish, jellyfish, squid, sea urchins, fish, and algae. The eastern Pacific population of loggerhead turtles breeds on beaches in Central and South America. Southern California is considered to be the northern limit of loggerhead sea turtle distribution. In the eastern Pacific, loggerheads have been reported as far north as Alaska and as far south as Chile. On the western U.S. coast, occasional sightings are reported from the coasts of Washington and Oregon, but most records are juveniles off the coast of California (NMFS, 2015d). In the U.S., nesting occurs only in Florida and the worldwide population appears to be decreasing (NMFS, 2015d).

Marine Mammals

Blue whale. The blue whale (*Balaenoptera musculus*) is a Federally endangered species due to intensive historical commercial whaling. Blue whales are distributed worldwide in circumpolar and temperate waters, and although they are found in coastal waters, they are thought

to occur generally offshore compared to other baleen whales (Allen et al, 2011). Like most baleen whales, they migrate between warmer water breeding and calving areas in winter and high-latitude feeding grounds in the summer. Feeding grounds have been identified in coastal upwelling zones off the coast of California primarily within two patches near the Gulf of the Farallones and at the western part of the Channel Islands (Irvine et al., 2014). The most recent estimates of eastern north Pacific blue whale population indicate that a minimum of 1,551 individuals exist there (NMFS, 2015).

Fin whale. The fin whale (*Balaenoptera physalus*) is listed as a Federally endangered species due to a severe worldwide population decline due to intensive historical commercial whaling. Fin whales occur year around off of California, Oregon, and Washington (NMFS, 2015). The most recent estimates of the fin whale population indicate that at least 2,598 individuals occur off California, Oregon, and Washington (NMFS, 2015). There is some evidence that recent increases in fin whale abundance have occurred in the California current between 1991 and 2008. The most recent population estimates of fin whales indicate that at least 2,589 individuals occur off California, Oregon, and Washington (NMFS, 2015).

Eastern and Western Pacific gray whale. The Western Pacific gray whale (*Eschrichtius robustus*) stock or Distinct Population Segment (DPS) was listed as a Federally endangered species. Their summer and fall feeding grounds at Sakhalin Island, Russia. Portions of the Sakhalin population migrate east across the Pacific and south along the west coast of North America to Mexico. The Eastern Pacific gray whale DPS was once listed as endangered under the Endangered Species Act but successfully recovered and was delisted in 1994. Gray whales are both coastal and pelagic. They migrate through coastal shallow waters in fall and early spring. Gray whales breed in warm, shallow lagoons in Baja California and feed in shallow softbottom habitats on benthic and epibenthic invertebrates by filtering sediments. Western gray whales are more likely to occur in the Project area during their migrations in mid-February through May.

Humpback whale. The humpback whale (*Megaptera novaeangliae*) is a Federally endangered species, due to intensive historical commercial whaling. Humpback whales are distributed worldwide and travel great distance during their seasonal migration, the farthest migration of any animal (NMFS, 2015). Humpback whales spend the winter and spring months offshore Central America and Mexico for breeding and calving, and then migrate to their summer and fall range between California and southern British Columbia to feed (Allen et al., 2011). Although humpback whales typically travel over deep, oceanic waters during migration, their feeding and breeding habitats are in shallow, coastal waters over continental shelves. Cold and productive coastal waters characterize feeding grounds (NMFS, 2015). In the North Pacific, the California/Oregon/Washington stock winters in coastal Central America and Mexico, and migrates to areas ranging from the coast of California to southern British Columbia in summer/fall (NMFS, 2015). The most recent population estimates of humpback whales indicate that at least 1,876 individuals occur off California, Oregon, and Washington (NMFS, 2015). This population appears to be increasing (NMFS, 2015).

Sei Whale. The sei whale (*Balaenoptera borealis*) is a Federally listed endangered species. Sei whales were historically abundant off of the California coast and were the fourth most common whale taken by California coastal whalers in the 1950s-1960s. However, due to intensive whaling, they are now considered "extraordinarily" rare (NMFS, 2015; Allen et al., 2011). The most recent

estimate of the sei whale northern Pacific stock population is at least 83 individuals off California, Oregon, and Washington (NMFS, 2015). Sei whales occur throughout most temperate and subtropical oceans of the world. The northern Pacific stock rarely ventures above 55° N latitude or south of California (Allen et al., 2011). Like most baleen whales, they migrate between warmer waters used for breeding and calving in winter and high-latitude feeding grounds where food is plentiful in the summer. The northern Pacific stock ranges almost exclusively in pelagic waters and rarely ventures into coastal waters (Allen et al., 2011).

North Pacific Right Whale. The north Pacific right whale (*Eubalaena japonica*) is a Federally listed endangered species due to historical intensive historical commercial whaling. Like other baleen whales, right whales appear to migrate from high-latitude feeding grounds toward more temperate waters in the fall and winter, although the location of seasonal migration routes is unknown (Allen et al., 2011). The usual wintering ground of north Pacific right whales extends from northern California to Washington, although sightings have been recorded as far south as Baja California and near the Hawaiian Islands (Allen et al., 2011;). Females give birth to their first calf at an average age of nine to ten years. Gestation lasts approximately one year. Calves are usually weaned toward the end of their first year. This species feeds from spring to fall, and also in winter in certain areas. The primary food sources are zooplankton, including copepods, euphausiids, and cyprids. Unlike other baleen whales, right whales are skimmers: they feed by removing prey from the water using baleen while moving with their mouth open through a patch of zooplankton (NMFS, 2015). According to the NMFS (2015), the population estimate for the Eastern North Pacific Stock for this species remains low at only 31 individuals. No long-term population trends have been determined at this time (NMFS, 2015).

Southern sea otter. The southern sea otter is listed as Federally threatened, depleted under the MMPA, and fully protected under California Fish and Game Code. The sea otter was nearly extirpated by the fur trade during the 18th and 19th centuries. Historically, southern sea otters ranged from Punta Abreojos, Baja California Mexico, to Oregon, or possibly as far north as Prince William Sound, Alaska (USFWS, 2014). The current range extends from about Half Moon Bay in the north to Santa Barbara in the south. A small, satellite population of an estimated 59 animals also occurs at San Nicolas Island, the result of a translocation effort in the late 1980s (USFWS, 2014). This species prefers rocky shoreline with water depth of less than 200 ft (60.1 m), which support kelp beds where they feed on benthic macroinvertebrates including clams, crabs, abalone, sea urchins, and sea stars (Allen et al., 2011). Recent minimum population estimates for southern sea otters in California indicate that at least 2,944 individuals are known to occur and no long-term trends in this population are available (USFWS, 2014).

5.4.2 Checklist Responses

5.4.2.1 Terrestrial Resources

a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Blending the site topographic contours with the surrounding land would affect nearly half of the 17.54 acre project site. It would require removal of existing vegetation, consisting primarily of non-native, annual grassland and "non-native associations" but would also include rare plant (southern tarplant) habitat and jurisdictional wetlands with the storage tank containment berms. A quantification of various habitats and structural features within the area of affect is presented in Table 5.4-4. Table 5.4-5 refines this to show the extent of special status plant species and vegetation affected.

Table 5.4-4 Quantification of Habitats and Structural Features within Grading Plan Area

Type	Square Feet	Acres
Special Status Plants		
Southern Tarplant		
Total	10,018.80	0.23
Native Shrub Associations		
Coyote Bush		
Total	1,073.49	0.02
Coastal Sage Scrub		
Total	11,206.68	0.26
Native Shrub Associations		
Total	12,280.17	0.28
Native Grassland		
Total	220.76	0.01
Non-Native Associations		
Eucalyptus		
Total	52,272	1.2
Other Nonnative Trees and Shrubs		
Total	2,983.95	0.07
Annual Grassland		
Total	174,110.40	4.0
Paved Roads		
Total	4485.60	0.10

Table 5.4-4 Quantification of Habitats and Structural Features within Grading Plan Area

Type	Square Feet	Acres
Non-Native Associations		
Total	206,375.35	4.74
Invasive Species		
Harding Grass		
Total	0.00	0.00
Iceplant		
Total	2,178.00	0.05
Mustard		
Total	0.00	0.00
Fennel		
Total	8,712.00	0.20
Pampas Grass		
Total	32,643.08	0.75
Russian thistle		
Total	43,479.19	1.00
Invasive Species		
Total	87,012.27	2.00

Notes: [1] KMA 2014; [2] Does not include UCSB wetland restoration (0.11 acres) outside lease boundary

Table 5.4-5 Areal Extent of Permanent Impacts to Special Status Plant and Habitats

Biological Resource	Acres on Project Site	Impact Area (Acres)
Southern tarplant	0.23	0
USACE/EPA Wetland	0.32	0
CCC Wetland	1.13	0.02
Native grassland	0.16	0.02
Total Impact Area		0.04

All native habitats would potentially be impacted by invasive species removal. Soil disruption and removal of deeply rooted existing invasive plants has the potential to facilitate the spread of these species on and near the project site. This could further degrade

habitat value in the immediate area and would inhibit realization of restoration objectives. The proposed restoration plan would restore the project site and describes removal methods to avoid inadvertent spread of non-native species. In addition, proposed mitigation measure BIO-1a requires the implementation of a worker orientation environmental awareness program for all construction workers on site. This mitigation would alert the workers to the presence of environmentally sensitive habitats, wetlands and special status species within the project site and the measures required to protect the habitats and plants. Therefore, impacts to native habitats from invasive species removal would be **reduced to less than significant.**

b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

Please refer to response to item "c" below.

c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Impacts to jurisdictional wetlands may occur during removal of surface and subgrade features (e.g., tanks, pipelines) and redistribution of soil to match surrounding and historic contours. The proposed project site Grading Plan has been designed to avoid impacts to existing wetlands, where possible. Scheduling of work during the dry season (May 1 to November 1) and use of protective mats to minimize impacts to vegetation and soil are also proposed. Compensatory mitigation for any temporary loss of these artificial wetlands has been incorporated into the Restoration Plan in the form of wetland creation and enhancement at a ratio of a minimum of 1:1 (wetlands created/enhanced vs. wetlands impacted).

A small area of the CCC wetlands identified in the Wetland Delineation (KMA 2014) would be impacted by removing the culvert pipe and containment berms along the east side of the site that drains from the Tank 8264 containment into the Tank 8265 containment. Pipe removal may require trenching, which would remove vegetation and disrupt the soil profile. Based on the proposed grading plan, approximately 261 square feet (0.006 acre) of CCC wetland, comprising the drainage and culvert between the two containment areas, would be regraded within the southeast corner of Tank 8264 and the northeast corner of the Tank 8265 containment areas, respectively. In addition, berms around the containment areas will be lowered to a level that preserves the existing wetlands around the oil tanks but the very small, ephemeral wetland around the fire water tank will become part of the restored historic topography. Temporary intrusion into ephemeral wetlands during the dry season (May 1 to November 1) would be necessary to remove the 6-inch Line 96 pipeline segment within the Tank 8264 containment area and to reduce the elevation of the berms to match historic and adjacent topography. Mats would be used to protect vegetation and underlying soil during these activities. The total area of wetland impact is estimated to be 0.02 acres (InterAct 2014b). Compensatory mitigation to be provided by the proposed restoration plan consists of 0.4 acres of created wetland within the containment berms,

contiguous with existing wetlands and 1.08 acres of wetland enhancement (Ballast Pond wetlands (0.31 ac) and oil tank containment berm wetlands (0.77 ac).

Implementation of the proposed project site restoration plan (Figure 2.3-1 and Appendix A) is included in the project description provided in Section 2.0 above. The Restoration Plan was developed in consultation with restoration ecologists at UCSB who manage the surrounding Coal Oil Point Reserve and North Campus Open Space. Drafts of the Restoration Plan were reviewed by UCSB's restoration specialists for adequacy and compatibility with the Reserve's management objectives. With the implementation of the proposed restoration plan, along with the requirements of proposed mitigation measure BIO-2a to protect and avoid environmentally sensitive habitat on the project site, project-related impacts to on-site wetlands would be **reduced to a less than significant level**.

Special Status Plants

Southern Tarplant (*Centromadia parryi* ssp. *australis*). Southern tarplant is an annual species that occurs along the loading line, within the bermed areas around all three storage tanks, and adjacent to the property near the power poles to be removed. The plants and habitat within the developed facility would be affected when the storage tanks are removed. A small patch of Southern tarplant occurring around the small wetland across the perimeter road and across from the existing dirt access road to the west gate could be impacted when removing power poles. Impacts to this plant taxon would occur through removal of individual plants and more importantly, potential loss of the seed bank from grading. The seed bank is a genetic reservoir that contains seeds shed over many years.

Implementation of the proposed Project would impact approximately 0.11 acres of the estimated 0.8 acres that are occupied by tarplant. Implementation of the proposed project site restoration plan (Figure 2.3-1 and Appendix A) is included in the project description provided in Section 2.0 above. Implementation of the proposed restoration plan would create new tarplant habitat around the former oil tank containment areas to expand existing habitat. With the implementation of the proposed restoration plan, along with the requirements of proposed mitigation measure BIO-2a to protect and avoid environmentally sensitive habitat on the project site, project-related impacts to on-site tarplant would be **reduced to less than significant.**

ESHA/Sensitive Natural Communities

Native Grassland. Native grassland species include blue-eyed grass, dove weed, and fascicled tarweed. Annual grassland occurs along paths in scrub habitats, and occupies the less frequently disturbed low-lying land between the chain-link fence and the access road that runs along the northwest boundary to the power poles at the angle where the boundary turns south. Approximately 0.02 acre would be temporarily disturbed by project activities.

Implementation of the proposed project site restoration plan (Figure 2.3-1 and Appendix C) is included in the project description provided in Section 2.0 above. Implementation of the proposed restoration plan would create new native grassland habitat on much of the project site. With the implementation of the proposed restoration plan, along with the requirements of proposed mitigation measure BIO-2a to protect and avoid environmentally

sensitive habitat on the project site, project-related impacts to on-site native grasslands would be **reduced to less than significant**.

Coyote Brush Scrub. This habitat occupies a few patches on the property outside the developed area to the east and south. It also surrounds the ballast water pond between the fence and the pampas grass (colony that lines the banks of the pond). This habitat would not be disturbed except to remove pampas grass and/or iceplant. Therefore, impacts to coyote brush scrub habitat would be **less than significant**.

Venturan Coastal Sage Scrub. Most of the scrub on the project site west of the ballast water pond is Venturan coastal sage scrub habitat. It is punctuated with patches of pampas grass and iceplant, This habitat would not be disturbed except to remove pampas grass and/or iceplant. Therefore, impacts to Venturan coastal sage scrub habitat would be **less than significant**.

Southern Coastal Bluff Scrub. On the project site, this southern coastal bluff scrub occurs at the extreme southwest corner of the lease property and merges with the coastal sage scrub. It would not be disturbed by the project. Therefore, impacts to southern coastal bluff scrub habitat would be **less than significant**.

Southern Dune Scrub and Southern Foredunes. The loading line corridor passes through these habitat areas, along a strip of annual grassland except where the soil is very sandy. This vegetation would be affected by removal of the loading line and when the ditch it occupies is recontoured. Project activities would temporarily impact approximately 0.56 acres of native shrub and foredune plant communities. Implementation of the proposed project site restoration plan (Appendix C) is included in the project description in Section 2.0 above. Implementation of the proposed restoration plan would restore disturbed southern dune scrub and southern foredune habitat along the loading line route and project-related impacts to on-site these habitat areas would be **reduced to less than significant**.

Project Site Oak Tree. There is a single, mature coast live oak tree (*Quercus agrifolia*) among the eucalyptus/conifer windrow near the entrance to the project site. The tree would be preserved in place, however, project activities have the potential to significantly impact this tree. With the implementation of a tree protection plan, as required by proposed mitigation measure BIO-3a, and the plan to plant acorns and oak trees as part of the restoration plan, the potential for impacts to this native specimen tree would be **reduced to less than significant.**

d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

A number of common birds, mammals, and reptiles were seen during a survey completed in 2012. No sensitive species were seen during the survey but three sensitive species may occupy the sandy foredune area and two more might be found in the ballast water pond.

Wildlife species may be impacted by project activities. In general, impacts could potentially include injury or mortality during demolition and grading activities, temporary removal and disturbance of suitable habitat, and fugitive dust and increased noise in

habitats adjacent to the limits of work. These types of impacts would potentially affect all species occupying the site, including common and special-status species.

For wildlife species of relatively low mobility, such as reptiles and small mammals, ground disturbance could result in injury and mortality due to collapsed burrows and interactions with construction equipment. For wildlife species of higher mobility, such as medium-sized mammals and birds, the risk of injury or mortality during the project would be much lower. These species have home ranges that exceed the size of the project's impact boundaries, and interactions with construction equipment would be less likely. Adult birds would almost certainly be able to escape collisions by flying away, and so the potential for construction equipment to injure or kill adult birds is minimal.

The proposed project would remove currently developed and sparsely vegetated habitat within the Study Area that has marginal value for wildlife. Restoration activities would greatly improve the suitability of large portions of the site for wildlife movement and habitation by introducing native vegetative cover conducive to natural wildlife movement. The overall suitability of the habitat for use by transient wildlife would increase upon completion of the proposed project. The restored project site would be adjacent to the restored North Campus Open Space on the UCSB campus. The expansion of restored contiguous area that can be used for wildlife would be a **beneficial** wildlife impact.

Potential effects associated with injury/mortality for common wildlife would be **less than significant** due to the generally widespread nature of these common animals. Potential effects on wildlife corridors and habitat connectivity due to the proposed Project would **be less than significant** because proposed activities would not substantially limit or fragment the range of movement for species that currently use the site. Project-related activity would be temporary, and the surrounding habitats can support wildlife movement. Restoration of the project site would enhance wildlife movement and habitat conductivity in the long-term by removing fences and improving habitat and cover on the site.

Special Status Wildlife

Globose Dune Beetle (*Coelus globosus*). The globose dune beetle may occur in the foredunes surrounding the loading line. Much of the area to be affected by removal of the loading line is thickly vegetated with iceplant and other annual weeds, indicating degraded habitat value and low likelihood of occurrence. Although globose dune beetles are unlikely to be encountered, pre-project survey, capture, and relocation of dune beetles shall be required due to the beetle's Category 2 candidate for federal listing as threatened or endangered. The foredune habitat is expected to recover and be enhanced through restoration, following pipeline removal. With the implementation of pre-construction survey requirements, as required by proposed mitigation measure BIO-4a, the potential for short-term impacts to globose dune beetle would be **reduced to less than significant.**

California Legless Lizard (*Anniella pulchra*). Surveys for California legless lizard in the dune habitats at Coal Oil Point have not confirmed presence of this species. Impacts to this species could occur with removing the loading line. Although California legless lizard are unlikely to be encountered, pre-project survey, capture, and relocation of California legless lizard shall be required due to the lizard's California Species of Special Concern listing.

The foredune habitat is expected to recover and to be enhanced through restoration, following pipeline removal. With the implementation of pre-construction survey requirements, as required by proposed mitigation measure BIO-4a, the potential for short-term impacts to California legless lizard would be **reduced to less than significant.**

California Red-Legged Frog (*Rana draytonii*). The ballast water pond is a perennial pool that holds water year-round in most years. The dune slack pond located approximately 700 feet south of the facility is ephemeral in most years. Both support suitable habitat for CRLF. Surveys for this species were recently completed in the ballast pond and CRLF are not known to use the Dune Pond (Sandoval, pers com). CRLFs can migrate considerable distances to suitable habitat (i.e., 1-2 miles). Breeding populations of CRLF are known from Tecolote and Bell Canyon Creeks, approximately 1.9 miles to the northwest of the project property, and individuals have been documented from the main stem of Devereux Creek between the Union Pacific Railroad tracks and Highway 101. The proposed earthwork and weed removal restoration activities around the ballast pond are designed to preserve and improve habitat value of this feature. Surveys completed in 2023 found no adult CRLF, or tadpoles or egg masses. However, if CRLF were present during site demolition, individuals could be crushed during earthwork and vegetation removal necessary to restore the pond. Proposed measures to avoid impacts to CRLF include pre-project protocol level surveys and consultation with USFWS, if CRLF are found to be located on the project site. With the implementation of pre-construction survey and consultation requirements, as required by proposed mitigation measure BIO-5a, the potential for impacts to CRLF would be **reduced to less than significant.**

Southwestern Pond Turtle (*Actinemys pallida*). Southern western pond turtles (SWPT) are known to occur in a number of ponds throughout Goleta including Lake Los Carneros located 2.3 miles to the northeast. They have been recorded in both the onsite ballast pond and the offsite dune swale pond, south of the project site in the past. Earth work and weed removal associated with restoration of the ballast pond is intended to preserve and enhance its value to wildlife. No SWPT were found on the project site during surveys conducted in 2023. However, if SWPT are present when the Project is implemented, individuals could be injured or killed by heavy equipment necessary for initial restoration. Proposed measures to avoid impacts to SWPT include pre-project surveys and capture and relocation of turtles if found to be present in the ballast pond. With the implementation of pre-construction survey requirements, as required by proposed mitigation measure BIO-5a, the potential for impacts to SWPT would be **reduced to less than significant.**

Monarch Butterfly (*Danaus plexippus*). Monarch butterflies are known to occupy over-wintering sites in the groves of eucalyptus on Ellwood Mesa. None of these have been documented from the immediate vicinity of the project site. The proposed project would result in the removal of approximately 1.28 acres of eucalyptus trees and some tree trimming along the access road to the beach. Monarchs have not been documented overwintering in the blue gum and conifer windrow at the project site or along the north-south windrow along the access road to the beach, and are not expected to congregate there because it does not provide the sheltered microclimate required by the butterflies. However, the project would be required to conduct preconstruction surveys of the windrow and trees to verify the absence of Monarch butterflies. With the implementation of proposed mitigation

measure BIO-7a, potential impacts to monarch butterfly would be **reduced to less than significant**.

Western Snowy Plover (*Charadrius nivosus nivosus*). The nesting colony of Western snowy plovers at Coal Oil Point is the largest and most consistently occupied on the South Coast of Santa Barbara County. This federally-listed species nests on the ground among dune habitat. The eggs and chicks are especially vulnerable to predation by wildlife commonly attracted to human activity, including corvids (crows, ravens), raccoons, opossums, and foxes. Human activity can lead to nest abandonment, nest failure due to crushing of eggs and chicks, and reduced breeding success.

Breeding snowy plovers could potentially be subject to all of these effects (i.e., disruption of nesting activity, nest abandonment or predation) during removal of the loading line. The impacts would be temporary in nature. Removal of the loading line is expected to take 3-4 weeks for completion, after which the affected dune and shoreline habitats would be restored to pre-project conditions. Impacts, including incidental take of eggs or young, would be avoided through seasonal timing and avoidance of the nesting season. Pre-project surveys and monitoring would reduce the potential for take or harassment of adult birds during the non-breeding season. With the implementation of proposed mitigation measure BIO-8a, the potential for short-term impacts to western snowy plover would be **reduced to less than significant.**

California Least Tern (*Sternula antillarum browni*) (Nesting colony). The potential for and sources of impact to California least tern are similar to that of western snowy plover. These birds are especially intolerant of disturbance, and would readily abandon nests. In the past few years, California least terns have nested near the project site, and therefore removal of the loading line has the potential to adversely affect nesting success. Pre-project surveys and monitoring would reduce the potential for take or harassment of adult birds during the non-breeding season. With the implementation of proposed mitigation measure BIO-8a, the potential for short-term impacts to California least tern would be **reduced to less than significant.**

Raptors. Various raptors have the potetnial to be located at and near the project site, including great-horned owl, white-tailed kite, Cooper's hawk, red-tailed hawk, and red-shouldered hawk. The eucalyptus windrow has supported only a very few raptor nests and no white tailed kite nests since 1990. One red tailed hawk was observed nesting in the eucalyptus in 2012 and a red shouldered hawk was observed nesting in 2020. There have been no Coopers hawk nests recorded in the past 30 years.

All of the on-site eucalyptus trees are proposed for removal and trees are proposed to be trimmed along the north-south eucalyptus windrow at the beach access road. Noise and general activity associated with demolition and restoration could also result in nest abandonment. Loss or nest abandonment would be avoided through seasonal timing of the demolition and restoration work or pre-project surveys to confirm that nesting is not in progress. With the implementation of pre-construction survey requirements, as required by proposed mitigation measure BIO-9a, the potential for short-term impacts to nesting raptors would be **reduced to less than significant.**

Nesting Birds. Nesting bird species are afforded protection through the Federal Migratory Bird Treaty Act and California Fish and Game Code. These protections also cover active

nests. Noise and general activity associated with demolition and restoration could also result in nest abandonment. Loss or nest abandonment would be avoided through seasonal timing of the demolition and restoration work or pre-project surveys to confirm that nesting is not in progress when construction is initiated. With the implementation of pre-construction survey requirements, as required by proposed mitigation measure BIO-9a, the potential for short-term impacts to nesting birds would be **reduced to less than significant.**

Bats. A number of species may forage within the project property, including the Pallid bat, Townsend's big-eared bat, Western red bat, and the Yuma myotis. Roosting is considered unlikely, given absence of optimal roost sites. Disruption of active roosts would be avoided through pre-project survey and inspection of potential roost sites (i.e., structures to be removed). With the implementation of pre-construction survey requirements, as required by proposed mitigation measure BIO-10a, the potential for short-term impacts to bats would be **reduced to less than significant.**

e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Please refer to IS/MND Section 5.10 (Land Use and Planning) for an evaluation of the Project's consistency with applicable policies of the 2010 LRDP. The policy analysis concludes that with the implementation of identified mitigation measures, the Project would be consistent with the applicable biological resource protection policies of the LRDP.

f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The EMT Demolition and Restoration project site is not included in any Habitat Conservation Plan or Natural Community Conservation Plan. The project site is adjacent to critical habitat designated for the snowy plover. Potential project-related impacts to snowy plover would be reduced to a less than significant level with the implementation of proposed mitigation BIO-8a, which specifies required species avoidance and impact minimization measures. With the implementation of these measures, potential impacts to snowy plover and associated critical habitat areas would be **reduced to less than significant**.

5.4.2.2 Marine Resources

a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Loading Pipeline Removal Impacts

Special-Status Plants. If seagrass or kelp habitats are located along the loading pipeline corridor, pipeline removal may result in the removal or damage of seagrass beds or macroalgae. To reduce the potential for such impacts, proposed mitigation measures require the Project to implement the following:

- Mitigation measure BIO-11a requires a dive survey along the pipeline prior to initiating decommissioning activities to ensure avoidance of sensitive habitats.

- Mitigation measure BIO-11b requires a dive survey at the anchor sites and along the former loading line location after pipeline removal to confirm seafloor clean up and site restoration ; and

- Mitigation measure BIO-11c requires the preparation of a technical report after completion of the Project. The report would document marine resources impacts resulting from the Project and provide recommendations regarding any restoration actions, if necessary, to restore impacted areas.

With the implementation of these mitigation measures, the Project's potential loading line removal impacts would be **reduced to less than significant**.

Intertidal Community Impacts

Nearshore loading pipeline removal activities have the potential to suspend soft-bottom sediments and increase water turbidity. Disturbed water column conditions may contribute to: 1) a decrease in light penetration and cause general decline in aquatic primary productivity; 2) clogging the respiratory and feeding apparatuses of fish and filter-feeding invertebrates; 3) altering fish distribution and behavior; and/or 4) the deposition of sediments and burial of infauna and immobile epibiota. Fish may depart and/or avoid the turbid water areas, potentially reducing foraging opportunities for birds. Turbidity effects are expected to be local and relatively short-term due to the sandy sediment that is present within this area and its anticipated rapid settlement. These effects are generally expected to be similar to, but less than, those turbidity effects generated by storm waves. Potentially significant project-related turbidity impacts, however, would be further reduced by proposed mitigation measure WQ-1a, which requires the use of floating sediment curtains during sand jetting operations if ocean conditions are favorable. With the implementation of this measure, potential turbidity impacts would be **reduced to less than significant**.

Proposed loading pipeline removal activities have the potential to impact grunion spawning habitat. Grunion spawning occurs from March through August and occasionally in February and September, with peak spawning in late March to early June (CDFW, 2016). Proposed mitigation measure BIO-11d requires that the removal of the loading line not occur during grunion spawning season. With the implementation of this measure, potential impacts to grunion habitat would be **reduced to less than significant.**

Subtidal Community Impacts

The proposed project includes the complete removal of the offshore loading line. Organisms residing on the seafloor (benthic) along the pipeline corridor and adjacent to the excavation areas could be suspended in water possibly exposing them to fish and macroinvertebrate predators during the excavation process. Therefore, it is assumed that there will be some mortality of benthic organisms residing within the seafloor sediments in areas within or adjacent to underwater excavations. However, due to the relative abundance of benthic organisms in the area, rapid re-colonization of empty space by recruits would be expected.

Mobile organisms (e.g., fish, large crustaceans, etc.) are expected to depart the area during the pipeline removal disturbance and are not expected to be significantly impacted by project activities. Less mobile organisms may be impacted by adjacent sediment deposition that would occur during excavation activities. The extent of mortality in this situation would be dependent upon the volume of material removed, conditions (e.g., current, direction, tide), and number of organisms in the deposition area. Due to the short-term affects to the seafloor that would occur as a result of proposed activities (i.e., increased turbidity, smothering of benthic organisms, and temporary displacement) and the limited area of disturbance in relation to the surrounding area, the loading line removal operation would result in **less than significant** long-term impacts to the regional subtidal marine community.

Removal of the offshore loading line would temporarily alter the existing bathymetric contours. However, sediment contours within the impacted areas would be expected to be gradually re-established by natural processes including wave action and water movement, and subsequent re-colonization by benthic organisms would be expected to occur rapidly. Considering all the above, impacts of the project to the subtidal community would be **less than significant.**

Vessel Anchoring Impacts

Project-related vessel anchoring has the potential to create localized turbidity and affect nearby eelgrass beds, kelp (algae) beds, soft-bottomed seafloor habitat, and rocky substrate. Potentially significant impacts could occur if anchoring creates turbidity that reduces water clarity and increases sediment deposition, or if anchor lines are placed onto or cut across sensitive habitats. Deeper water rock habitats are considered more sensitive in that they are not routinely subjected to natural disturbances (i.e., storm waves) and they support long-lived, slow-growing organisms that are particularly sensitive to disturbance. Further, placing anchors onto habitats could crush attached organisms and anchor lines that cross habitat features could abrade and remove or damage algae (including kelp) and attached epibiota. To reduce these potential impacts, the following mitigation measures are proposed:

- Mitigation measure BIO-12a requires the preparation and implementation of an Anchoring Plan that explains how the Project would avoid sensitive ocean floor habitats.

- Mitigation measure BIO-12b requires the preparation of an Oil Spill Prevention and Contingency Plan (OSPCP) to be implemented in the event of a small oil spill during project activities.

The implementation of other previously described mitigation measures would also be required to reduce the potential for vessel anchoring impacts, including:

- Mitigation measure BIO-11a, which requires a pre-project biological survey to identify sensitive habitats in the area, including a dive survey at the proposed anchor locations;

- Mitigation measure BIO-11b, which requires a dive survey at the anchor sites and along the former loading line location after pipeline removal, confirming seafloor clean up and site restoration; and

- Mitigation measure BIO-11c, which requires the preparation of a technical report after completion of the project, reporting on the marine resources impacts and recommending any restoration actions, if necessary.

With the implementation of these mitigation measures, the Project's potential loading line removal impacts would be **reduced to less than significant**.

Project Vessel Operation Impacts

Whales could venture near or into the project site during northbound or southbound migrations. The traffic caused by marine vessels could potentially divert whales on a shallow, inshore track or further offshore and away from the project site. Dolphins generally tolerate or even approach vessels and reactions to boats often appear to be related to the dolphins' normal activity. Resting and foraging dolphins tend to avoid boats while socializing dolphins will often "run" with a boat leaping from the water, or riding the bow or stern wakes. Very little information on pinnipeds' responses to vessels is available; however, sea lions in the water often tolerate close and frequent approaches by vessels. California sea lions and harbor seals are the only pinniped within the project site that regularly haul-out on man-made structures such as docks, buoys, oil and gas structures and even slow-moving vessels. Bartholomew, 1967, suggests sea lions that are hauled-out on land are more responsive than when they are in the water and react when boats approach within 330 to 660 ft . Harbor seals also often move into the water in response to approaching boats. Even small boats that approach within 330 ft displace harbor seals from haul-out areas. Less severe disturbances can cause alert reactions without departure. Although marine turtles could be harmed or killed by Project-related vessels, collision impacts are considered to be adverse but not significant. Marine turtles are very rare in the Project area, and collisions with vessel traffic are not expected to occur. The Project would not occur near any pinniped haul-outs, and marine wildlife should easily be able to avoid the project's area of disturbance. However, there is a chance that the Project's offshore activities could disturb marine wildlife's routes. To reduce impacts to marine wildlife, proposed mitigation measure BIO-13a requires the applicant to prepare and implement a Marine Wildlife Monitoring and Contingency Plan that monitors Project activities to ensure protection of sensitive species. With the implementation of this mitigation measure, potential impacts to marine mammals would be **reduced to less than significant.**

Project-related vessel operations would require the use petroleum hydrocarbon materials such as fuels and lubricants, and onboard operations may require the use of other hazardous substances. The loading line to be removed was previously flushed to remove oil products, however, residual hydrocarbon substances may remain in the pipeline. An accidental release of hydrocarbons or other contaminants from a vessel or the loading line would have the potential to result in significant impacts to water quality and marine life. To reduce the potential for a release of hydrocarbons from the loading line, a seep tent would be used to contain potential leakage into the marine environment. To reduce the potential effects of a hazardous material release resulting from vessel operations, proposed mitigation measure BIO-12b requires the preparation of an Oil Spill Prevention and Contingency Plan that would be implemented in the event of a small oil spill. In the event of a large hazardous substance release numerous regulatory requirements, such as but not limited to the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPRA) established the

Oil Spill Prevention and Response Division of the California Department of Fish and Wildlife to provide protection of California's natural resources from petroleum discharges. OSPRA covers all aspects of marine oil spill prevention and response in California, and established an Administrator who is given broad powers to implement the provisions of the Act. With the implementation of this and other regulatory requirements, potential contaminant release impacts from offshore operations would be **reduced to less than significant**.

Underwater Construction Noise

General underwater Project activities such as excavation jetting, pipe-cutting, vessel transit, as well as construction equipment on the surface, have the potential to temporarily increase ambient noise levels in the local marine environment. While tidal currents and waves produce hydrodynamic sounds, which register at very low frequencies (<100 hertz [Hz]), ship traffic and underwater construction noise can range from 10 to 1000 Hz (USACE 2015).

The major contributors to underwater noise from excavation jetting include sounds involving the movement of sediment, water, and air against the seabed, and ship machinery sounds associated with the lowering and lifting of equipment and the pipelines. Project vessels produce noise primarily with their propellers, motors, and gears. The faster the propeller rotates the more cavitation noise, and the higher the frequency of noise produced (i.e., a slowly rotating propeller generates low frequencies [below 10 Hz] and a faster spinning propeller can produce frequencies up to 20 kilohertz [kHz]). Noise levels from marine vessels can range from <150 decibels (dB) re micropascals (1 µPa2s) to over 190 dB re 1 µPa2s at 1 meter from the sound source (USACE 2015). Similarly, underwater pipe-cutting increases noise levels in the immediate work area with disturbance of sediments and operating machinery.

At close ranges, underwater equipment sound levels can have physiological and behavioral effects on fish and marine wildlife; however, mobile marine wildlife will likely avoid underwater work areas and equipment and would not stay close enough to the equipment to experience injury or mortality. Marine wildlife will likely leave the area of their own volition, and temporarily disperse to available and suitable habitat within the greater region around Point Conception. Impacts from underwater construction noise would be less than significant.

b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

Refer to "a" above regarding potential project-related impacts to sensitive offshore communities such as seagrass or kelp habitats, intertidal areas, and subtidal areas.

c. *Have a substantial adverse effect on state or federally protected waters (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Refer to "a" above regarding potential impacts to species that may utilize natural communities that may occur in Marine Conservation Areas, including the Campus Point State Marine Conservation Area and the Naples Marine Conservation Area (Figure 5.4-2).

d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Refer to "a" above regarding potential impacts to whales, dolphins, pinnipeds and other wildlife that may be located in the Project area.

e. *Conflict with any local policies or ordinances protecting biological resources, such as water quality?*

Please refer to IS/MND Section 5.10 (Land Use and Planning) for an evaluation of the Project's consistency with applicable policies of the California Coastal Act. The policy analysis concludes that with the implementation of identified mitigation measures, the Project would be consistent with the applicable biological resource protection policies of the Coastal Act.

f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Project site is located within the Campus Point State Marine Conservation Area and is approximately 2.65 miles east of Naples State Marine Conservation Area. With the implementation of proposed mitigation measures identified in Section 5.4.4, the Project's potential impacts to marine resources in these areas would be **reduced to less than significant**.

5.4.3 Cumulative Impacts

With the implementation of proposed mitigation measures, the Project would not result in significant biological resource impacts and there would be no net loss of sensitive onshore or offshore habitat. Therefore, the Project would not have a cumulatively considerable effect on sensitive biological resources on a regional scale, and cumulative impacts would be **less than significant**.

5.4.4 Mitigation Measures

5.4.4.1 Terrestrial Resources

Impacts Reduced to a Less Than Significant Level With Proposed Mitigation

Impacts to terrestrial biological resources that have the potential to result from the proposed Project can be reduced to a less than significant level with the implementation of the following mitigation measures.

IMPACT BIO-1 The removal of invasive non-native species from the project site has the potential to result in impacts from the spread of those species.

BIO-1a A biological monitor(s) will conduct a worker orientation for all construction contractors (including site supervisors, equipment operators, and laborers) which emphasizes the presence of special status species within the project site, identification of those species, their habitat requirements, applicable regulatory policies and provisions regarding their protection, measures being implemented to avoid and/or minimize impacts, and penalties for noncompliance will be conducted. Workers will be provided with a brochure or handout presenting special status species within the project site. To document compliance, workers will be required to sign an acknowledgment statement signifying program completion and an onsite log of workers trained will be maintained.

IMPACT BIO-2 Implementation of the Project would result in impacts to sensitive habitat located on and adjacent to the project site.

BIO-2a Prior to construction, a qualified biologist shall delineate the boundaries of wetland habitat, native grasslands, and areas that support tarplant that will not be affected by grading and site restoration. These boundaries shall be demarcated with temporary fencing to prevent inadvertent damage during demolition and grading. The single coast live oak at the entrance to the project site shall also be fenced for avoidance.

IMPACT BIO-3 Implementation of the Project would have the potential to impact a single coast live oak tree near the entrance to the project site.

BIO-3a A Tree Protection Plan (TPP) shall be prepared by an arborist and/or biologist and designed to protect the onsite oak tree during project activities. The following shall be included on the TPP Plan:

a. Fencing of all trees to be protected at least six feet outside the dripline with chain-link (or other satisfactory material) fencing at least 3 ft high, staked to prevent any collapse, and with signs identifying the protection area placed in 15-ft intervals on the fencing.
b. Fencing/staking/signage shall be maintained throughout all demolition and grading activities.
c. No irrigation is permitted within 6 feet of the dripline of the protected tree unless specifically authorized.
d. The following shall be completed only by hand and under the direction of an arborist/biologist:
    i. Any trenching required within the dripline or sensitive root zone.
    ii. Cleanly cutting any roots of one inch in diameter or greater, encountered during grading or construction.
    iii. Tree removal and trimming.
e. Special equipment: If the use of hand tools is deemed infeasible work with rubber-tired construction equipment weighing five tons or less may be used.
f. Grading shall be designed to avoid ponding and ensure proper drainage within the dripline of the oak tree.

IMPACT BIO-4 Removal of the onshore portion of the loading line located near the coast has the potential to result in short-term impacts on globose dune beetle and California legless lizard.

BIO-4a Prior to removal of the loading line at the coast, surveys of sandy dune habitat will be conducted for globose dune beetle and California legless lizard. If either or both of these species are found to be present, they shall be captured and relocated by a qualified biologist. If presence is confirmed during pre-project surveys then all work in the dune habitat shall be monitored by a qualified biologist and dune beetles and legless lizards shall be captured and relocated if encountered.

IMPACT BIO-5 Removal of the on-site ballast water pond has the potential to result in impacts on California red-legged frog.

BIO-5a Prior to restoration of the ballast pond presence/absence surveys acceptable to the U.S. Fish and Wildlife Service for California red-legged frog shall be completed, as described in U.S. Fish and Wildlife Service Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (August 2005). If California red-legged frogs are found, USFWS shall be consulted and any necessary approvals and/or permits obtained. No work

may occur in the ballast pond without USFWS concurrence, if California red-legged frogs are found to be present.

IMPACT BIO-6 Modification of the on-site ballast water pond has the potential to result in impacts on southwestern pond turtle.

BIO-6a Prior to restoration of the ballast pond, a survey acceptable to the California Department of Fish and Wildlife (CDFW) shall be conducted by a biologist holding a valid CDFW Scientific Collecting Permit. The survey will be conducted to assess the habitat quality, detect pond turtle presence, and determine if the site is better suited for seining and/or trapping. Approximately 2 feet of water is required for trapping. Surveys will be conducted by walking upstream or around the suitable habitat. Pools will first be observed from a distance using binoculars and then approached slowly and methodically to prevent disturbing any pond turtles. If the habitat is deemed suitable and trappable during the survey, the *"Western Pond Turtle (Emys marmorata) Trapping Survey Protocol for the Southcoast Ecoregion"* (USGS 2006) will be used to evaluate trap locations and set turtle traps. If conditions are such that suitable habitat is not available within the ballast pond at the time of trapping, CDFW will then be consulted and an alternative, off-site location will be identified prior to trapping. Turtles will be transported in buckets and released as soon as possible after trapping into the dune swale pond on the Coal Oil Point Ecological Reserve, or an alternative off-site location identified by CDFW.

If the site is not suitable for trapping, then seining methods will be used. A suitably-sized seine will be used based on pool size and location. Seining methods will generally consist of ensuring the seine bottom is properly weighted and flush with the pool bottom contours with the seine set perpendicular to the stream or pond. At least two biologists will then slowly walk the seine across to the opposite bank. Upon reaching the opposite bank, the seine will be checked for species captured. Care will be taken to seine the entire stream or pool area to ensure no turtles are missed.

IMPACT BIO-7 Removal of the on-site eucalyptus trees and trimming eucalyptus along the access road to the beach has the potential to result in impacts on monarch butterflies.

BIO-7a A biologist shall conduct surveys for aggregations of monarch butterflies if removal of mature trees must take place during the monarch butterfly overwintering season (October 1 to March 31).

Surveys shall be conducted within areas of suitable habitat where mature trees are proposed to be removed.

If aggregations of monarch butterflies are discovered during pre-construction surveys or during construction activities and are determined to be impacted during construction, the applicable agency shall be notified and these areas shall be avoided and impacts shall be minimized to the extent practical. A biologist shall make recommendations for avoiding and minimizing impacts. Locations of roosting monarchs shall be marked on an aerial map and provided to the construction crew on a weekly basis. Tree removal shall be delayed until the butterflies abandon the roosts (typically around April 1 to September 30). The biological monitor(s) shall be responsible for documenting the results of the surveys and ongoing monitoring and shall provide a copy of the monitoring reports to the appropriate agencies as applicable.

During the monarch butterfly's breeding season (February to August), larval monarchs may be present in onsite habitats containing milkweed plants. The vegetation to be removed by the project would include habitats where milkweed plants and larval monarchs could occur. Prior to vegetation removal, surveys shall be conducted to identify any milkweed plants growing within the work area. If milkweed is observed, it shall be inspected for monarch butterfly caterpillars or eggs. If present, minimization measures shall be enacted to either relocate or avoid any milkweed containing monarch butterfly caterpillars or eggs.

IMPACT BIO-8 Removal of the onshore portion of the loading line located near the coast has the potential to result in short-term impacts on snowy plover and California least tern.

BIO-8a. The following measures shall be implemented to minimize or avoid impacts to western snowy plover and California least tern:

1. Removal of the loading line shall be scheduled to avoid the nesting season for California least tern and Western snowy plover (March 1 through September 30).
2. A biologist shall conduct a Worker Awareness Training Program for all project personnel. Training will occur prior to initial construction activities and repeated, as necessary for new workers. The training program will include a description of: (1) biological sensitivities of the project area; (2) regulatory context (e.g., permit conditions, Federal Endangered Species Act); specific measures to avoid impacts to western snowy plover and least tern; species identification and behavior; (3)

the roles and responsibilities of project personnel; and (4) communication protocols and contingencies if western snowy plovers are detected in the work zone.

3. The biologist shall monitor construction to ensure compliance with permit conditions of approval. The biologist will have the authority to temporarily halt activities if permit requirements and conditions are not being met.
4. Prior to construction, the limits of the work zone, staging areas, and access routes shall be delineated and clearly marked in the field. The boundary of the western snowy plover nesting area (as determined by the Manager of the Coal Oil Point Ecological Reserve) shall be delineated with fencing and signage.
5. The biologist shall conduct a survey of the work area each morning, prior to the start of construction activity. If western snowy plovers are found roosting within 300 feet of the construction zone, work shall be delayed until the birds have left on their own accord.
6. Vehicle speeds shall not exceed 10 miles-per-hour operating on or near the beach.
7. The manager of the Coal Oil Point Ecological Reserve shall be consulted regarding any additional measures necessary to avoid harassment or take of these species, if present in or near the work area.
8. Foredune habitat affected by pipeline removal shall be restored in accordance with the Project's Habitat Restoration Plan. Excavations shall be backfilled and shoreline habitats shall be returned to original grade at the end of each work day.

IMPACT BIO-9 Implementation of the Project would have the potential to result in the destruction of active raptor and other bird nests and/or the abandonment of active nests.

BIO-9a To avoid disturbance or loss of active bird nests during development under the 2010 LRDP, any removal of eucalyptus, coast live oak, pine, cypress, or other trees that provide nesting habitat for birds, or disturbance of natural grassland areas shall be conducted between September 15 and February 15, outside of the typical nesting season.

BIO-9b If tree removals or disturbance of natural grassland areas are determined to be necessary during the typical nesting season (February 15 to September 15), nesting bird surveys shall be conducted by a qualified biologist immediately prior to the

proposed action. Surveys shall follow standard protocols as established by CDFW and/or CCC. If the biologist determines that a tree or natural grassland area is being used for nesting at that time, disturbance shall be avoided until after the young have fledged from the nest and achieved independence. If no nesting is found to occur, necessary tree removal or grassland disturbance could then proceed.

BIO-9c To avoid indirect disturbance of active bird nests by project construction occurring within the typical nesting season, a qualified biologist shall be retained to conduct one or more pre-construction surveys per standard protocols approximately 1 week prior to construction, to determine presence/absence of active nests adjacent to the project site. If no breeding or nesting activities are detected within 200 feet of the proposed work area, noise-producing construction activities may proceed. If breeding/nesting activity is confirmed, work activities within 200 feet of the active nest shall be delayed until the young birds have fledged and left the nest.

IMPACT BIO-10 Implementation of the Project would have the potential to result in impacts to bats that may be located on the project site.

BIO-10a Prior to demolition of the operations control room and pump house, a qualified biologist shall inspect these structures for presence of roosting bats. If bats are found to be present, a bat specialist shall be consulted as to the best method of capture and relocation. If a natal roost is found, demolitions shall be delayed until the young have weaned.

5.4.4.2 Marine Resources

Impacts Reduced to a Less Than Significant Level With Proposed Mitigation

Impacts to marine biological resources that have the potential to result from the proposed Project can be reduced to a less than significant level with the implementation of the following mitigation measures.

IMPACT BIO-11 Removal of the offshore loading line has the potential to result in significant impacts to seagrass and kelp habitats, and to grunion habitat.

BIO-11a At least 90 days prior to the initiation of decommissioning activities, a survey shall be conducted and used for project planning and to ensure avoidance of sensitive habitats to the extent feasible during project activities. This survey shall provide the basis for the Anchoring Plan required by mitigation measure BIO-12a. A dive/ROV survey shall be conducted at the proposed anchor

locations and along the pipeline corridor to ensure that avoidance of sensitive species and hard bottom habitat areas is achieved and to determine the presence or absence of the invasive algae (*Caulerpa taxifolia*) and seagrasses. Prior to the commencement of the survey, the following shall be completed:

1. At least 2 weeks before commencement of the pre-construction survey a survey scope and methodology shall be submitted to CSLC staff, CCC, BSEE, and NMFS for review and approval.

2. The survey scope and methodology shall:

   a) Identify survey goals, which shall include but not necessarily be limited to surveys of hard bottom habitat areas, areas where eelgrass and kelp are present, locations of pipelines, etc.
   b) Identify the personnel and types of equipment to be used in the survey, such as remotely operated vehicle (ROV), sidescan sonar, diver surveys, etc.
   c) Identify how survey data will be provided to the agencies, such as maps (including scale and resolution), video, etc.

3. All surveys employing low-energy geophysical equipment, including ROV surveys, shall be conducted by an entity holding a valid Permit under the CSLC's Offshore Low Energy Geophysical Survey Permit Program (see www.slc.ca.gov/Division_Pages/DEPM/OGPP/OGPP.html).

4. A pre-construction marine biological survey report shall be prepared and submitted CSLC, CCC, Bureau of Safety and Environmental Enforcement (BSEE), within 30 days of completion of the survey.

BIO-11b No more than 30 days following completion of all offshore activities, a dive/ROV survey shall be completed and submitted to the CSLC. The survey shall:

1. Include the entirety of the area affected by the Project, including all anchor locations to confirm seafloor cleanup and site restoration.

   Document any impacts to sensitive species and habitats that could have resulted from construction activity.

2. Be conducted by an entity holding a valid Permit under the CSLC's Offshore Low Energy Geophysical Survey Permit

Program if the survey employees low-energy geophysical equipment, including ROV surveys: www.slc.ca.gov/Division_Pages/DEPM/OGPP/OGPP.html.

BIO-11c. A post-project technical report shall be prepared no more than 60 days following completion of the post-project marine biological survey (mitigation measure 11b) and be submitted for review and approval to CSLC, CCC, BSEE, and NMFS. The report shall include at a minimum the following information:

1. A map of the survey route noting the location of any impacted areas;

2. Quantification (in square meters) of seafloor impacts and estimated numbers and species of organisms affected if any;

3. If required, a restoration proposal that is based on the results of the survey and proportional to the actual amount of rocky habitat, kelp, and eelgrass affected. The proposal shall contain:

   a) Direct restoration actions that repair or restore affected areas and/or a contribution to an ongoing restoration program in the area (e.g., SeaDoc Society Lost Fishing Gear Recovery Project), as specified by agencies staff.
   b) An eelgrass restoration strategy that adheres to the Southern California Eelgrass Mitigation Policy and includes a requirement to use only native eelgrass (e.g., *Zostera marina*) for restoration purposes, where appropriate.
   c) Performance criteria for the restored eelgrass.
   d) A schedule for implementing and completing the required restoration.
   e) Value of posted performance securities.

BIO-11d Intertidal activities shall be scheduled outside of the grunion spawning season, which is generally three or four nights after the highest tide associated with each full or new moon in spring and summer.

IMPACT BIO-12 Project vessel anchoring has the potential to create localized turbidity and affect nearby eelgrass beds, kelp (algae) beds, soft-bottomed seafloor habitat, and rocky substrate.

In addition to the implementation of mitigation measures BIO-11a, 11b, and 11c, the following mitigation measures shall be implemented.

BIO-12a At least 90 days prior to commencement of offshore activities, an Anchoring Plan shall be prepared and submitted to CSLC, CCC,

Bureau of Safety and Environmental Enforcement (BSEE), and NMFS for review and approval. At minimum, the anchoring plan shall describe how, based on the results of the pre-project habitat survey (mitigation measure BIO11a), vessels will avoid placing anchors on sensitive ocean floor habitats and pipelines. The Anchoring Plan shall include at least the following information:

1. A list of all vessels that will anchor during the project and the number and size of anchors to be set;
2. Detailed maps showing proposed anchoring sites that are located at least 40 ft (12.2 m) from rocky habitat identified during the Pre-Project Habitat Survey;
3. A description of the navigation equipment that would be used to ensure anchors are accurately set; and
4. Anchor handling procedures that would be followed to prevent or minimize anchor dragging, such as placing and removing all anchors vertically.

BIO-12b A Project-specific Oil Spill Contingency Plan (OSCP) shall be developed and submitted to UCSB, CLSC, and the CCC for review and approval 90 days prior to Project implementation. and implemented during all Project activities in the event of a release of oil or contaminants. The OSCP shall include prevention measures including daily inspection of equipment, refueling at designated stations, and secondary containment for equipment to prevent spills. Additionally, work sites shall maintain onsite response equipment to clean up minor spills. In the event of a major spill (greater than five barrels), the OSCP requires utilization of an independent oil spill response contractor (i.e., Marine Spill Response Corporation) to provide secondary cleanup.

IMPACT BIO-13 The operation of vessels at and near the offshore loading line project site has the potential to result in significant impacts to migrating whales and pinnipeds.

BIO-13a A Marine Wildlife Monitoring and Contingency Plan (MWMCP) shall be prepared and submitted to CCC, NMFS and CSLC staff for review and approval at least 60 days prior to commencement of Project activities. The approval Plan shall be implemented during offshore project activities. The MWMCP shall include the following:

1. Marine Mammal Monitors shall be trained by a marine mammal expert to recognize and avoid marine mammals prior to Project-related activities. Training sessions shall focus on the identification of marine mammal species, the specific behaviors of species common to the Project area and

barge routes, and awareness of seasonal concentrations of marine mammal species.

2. Vessel operators will make every effort to maintain a distance of 1,000 feet (305 m) from sighted whales and other threatened or endangered marine mammals or marine turtles. Marine Mammal Monitors shall observe offshore decommissioning activity to ensure that animals entering a 500-foot Minimum Safety Zone are not harmed.
3. Marine Mammal Monitors shall have the authority to direct suspension of work activity if deemed necessary to ensure safety of animals approaching within 200 feet.
4. All observations of marine mammals shall be documented. Collisions with marine wildlife shall be reported promptly to the Federal and State agencies listed below pursuant to each agency's reporting procedures.

   Stranding Coordinator, Southeast Region
   National Marine Fisheries Service
   Long Beach, CA 90802-4213
   (310) 980-4017

   Enforcement Dispatch Desk
   California Department of Fish and Game
   Long Beach, CA 90802
   (562) 590-5132 or (562) 590-5133
5. Vessel speeds shall be limited to 2 knots for the barge and 3-5 knots for support vessels within 1 mile of the work area to reduce the possibility of collisions.
6. Support vessels will not cross directly in front of migrating whales, other threatened or endangered marine mammals, or marine turtles. Female whales will not be separated from their calves, and vessel operators will not herd or drive whales. If a whale engages in evasive or defensive action, support vessels will drop back until the animal moves out of the area.

IMPACT BIO-14 Vessels used to remove the offshore loading line have the potential to result in the release of contaminants that have the potential to result in significant impacts to marine resources.

Implementation of mitigation measure BIO-12b, which requires the implementation of a project-specific Oil Spill Contingency Plan, would reduce the effects of this potential impact to a less than significant level. No additional mitigation is required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.5 CULTURAL RESOURCES - Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	✓	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	✓	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	✓	☐	☐

5.5.1 Setting

Archaeological Resources. For the past 10,000 years, the area that is now Santa Barbara County has been inhabited by Chumash Indians and their ancestors. Cultural resources have been identified in the vicinity of the proposed project based on a map and records search at the Central Coast Information Center (CCIC) conducted on July 28, 2005. The cultural resources review revealed five previously recorded archaeological sites located within or adjacent to the project site (within 0.25 mile). Two of those sites occur within the project area: CA-SBA-1327 and CA-SBA-2341.

The area was used for marine loading and oil storage since the late 1920's until 2012. Previous ground disturbance on the subject parcel included a marine loading facility and associated crude oil storage tanks (Ellwood Marine Terminal), and the Bishop Tank Farm formerly located along the southwestern boundary of the project area. Records indicate CA-SBA-1327 was first recorded in 1975 by Ehmann and Perez, and was observed to be mostly destroyed due to the development of the oil facilities and associated uses. CA-SBA-2341 was first recorded by Toren in 1990. Much like CA-SBA-1327, CA-SBA-2341 was documented as having been adversely affected by the development of oil facilities and the Bishop Tank Farm.

A Phase I pedestrian survey of the project area was conducted on August 22, 2012 (*Final Report: Archaeological Survey for the Venoco, Inc. Ellwood Marine Terminal Decommissioning Project, Santa Barbara County, California*, prepared by Garcia and Associates, September 2012). The two onsite archaeological sites were relocated during the survey and the site records were updated (California Department of Parks and Recreation 523 Archaeological Site records (Appendix B in the *Final Report: Archaeological Survey for the Venoco, Inc. Ellwood Marine*

Terminal Decommissioning Project). To determine the horizontal and vertical extent and integrity of the sites, an extended Phase I testing of the project site and a Phase 2 archaeological subsurface evaluation testing within CA-SBA-1327 and CA-SBA-2341occurred between March 25, 2015 and April 3, 2015 (*Archaeological XP1 and Phase II Testing and Evaluation at Ellwood Marine Terminal Decommissioning Project, Santa Barbara County, California,* prepared by Garcia and Associates May 2015). The report states that once testing began, it was apparent that the level of previous ground disturbance was more extreme than anticipated. Results determined that the entire project site had been mechanically stripped, graded and filled at variable levels, indicating a severe mixing of modern debris, historic and prehistoric artifacts with no distinct concentrations, patterning or assemblage. The report states that due to the sites both being adversely affected by past oil and gas development and activities on site, the sites are not considered eligible as a historical resource [i.e., eligible for listing on the National Register of Historic Places (NRHP) and /or California Register of Historical Resources (CRHR)].

Historical Resources. The Campbell Ranch property was purchased by the University to accommodate its expansion into what is known today as the West Campus. Buildings and structures at the former Campbell Ranch include a barn and granite cross that marked the gravesites of Campbell family members. The graves have been removed and reinterred off-campus. Devereux Hall (Santa Barbara County Landmark No. 27) on the Devereux property was the main residence of the Campbell Ranch.

5.5.2 Checklist Responses

a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*

The Ellwood Marine Terminal (EMT) facility was constructed in 1929 to store and transport crude oil produced from the South Ellwood and Ellwood Fields and later from Platform Holly. Although the proposed Project involves the demolition of structures greater than 50 years in age, according to the State Office of Historic Preservation, the EMT site is not listed in the National Register of Historical Places, nor is the facility listed or recommended to be listed in any of the State of California registration programs. The proposed Project would remediate and restore the project site to natural conditions. No project components would affect known significant historical resources on site, nor would any Project component substantially alter the setting or character of known historic resources in the vicinity. The nearest historical resources (Devereux Hall) is approximately 2,000 feet east of the project site. Therefore, the Project would have a less than significant impact on historical resources.

Shipwrecks are the most prominent known historical artifacts that lie beneath the waters off California. The CSLC Shipwrecks Database was consulted on May 4, 2023. One shipwreck was noted to be "Off Goleta," but no other location information was available. The National Oceanic and Atmospheric Administration Office's Coast Survey's Automated Wreck and Obstruction Information System does not show any known ship wrecks to be located in the vicinity of the offshore loading line. Therefore, it is unlikely that removal of the line would affect a historical artifact. In addition, the absence of submerged cultural resources would be confirmed during the pre-construction survey of

the loading line route required by proposed mitigation measure BIO-11a. If necessary, the proposed anchoring plan required by mitigation measure BIO-12a would be adjusted to avoid impacts to any recently discovered resources. Therefore, impacts to previously undiscovered offshore cultural resources are not anticipated.

b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Of the identified archaeological resources discussed above, both CA-SBA-1327 and CA-SBA-2341 are located within the area that would be disturbed by the Project. A Phase 2 archaeological study to assess the significance of onsite resources was conducted in spring of 2015. During the Phase 2 study, soils that contained archeological deposits in both sites were found to be severely mixed with modern debris, historic and pre-historic artifacts and no distinct concentrations, patterning or assemblage remained. Although no intact archaeological deposits were recorded during testing, the Phase 2 report concludes that diagnostic artifacts may be sealed within the berms or beneath the existing oil tank pads. The Phase 2 study did not include the areas under the tanks due to lack of access beneath the tanks. Project activities could have the potential to result in adverse effects to both CA-SBA-1327 and CA-SBA-2341 because of the potential to encounter undisturbed buried archaeological resources beneath the tanks. These areas may also have the potential to include contaminated soils that would be assessed by conducting a Tier 2 site soil assessment to detect and characterize contamination that may exist. The remediation of soil contamination would also have the potential to impact intact archaeological resources.

Proposed mitigation for impacts to on-site archaeological resources resulting from the implementation of the proposed Project and soil remediation that may be conducted includes requirements for pre-construction briefing of workers regarding the sensitive nature of the project area and requirements relating to the discovery of cultural resources (CUL-1a); construction monitoring (CUL-1b and 1c); specified actions to be implemented in the event that cultural resources are encountered (CUL-1d and 1e); and requirements to minimize the potential for impacts to undisturbed archaeological resources that may be associated with CA-SBA-2341 on the project site (CUL-1f). Proposed mitigation measures CUL-1d and 1e related to the disposition of archaeological resources that may be discovered at the site during ground disturbing activities was developed in consultation with representatives of the Santa Ynez Band of Chumash Indians (see Section 5.18 Tribal Cultural Resources, below). This measure requires that no further evaluation of discovered resources occur, and that discovered resources remain at the project site at the direction of the on-site Chumash Tribal representative and the University. With implementation of these measures, impacts to cultural resources would be **reduced to less than significant**.

During Project implementation, there would continue to be restricted access to the project site, which has a chain-link fence around it. Upon the completion of the Project, the site would become accessible open space. Although the site would be open to the public, severe disturbance from the development of the existing facilities has left site CA-SBA-1327, and the portion of CA-SBA-2341 on the project site, in poor condition, and both are no longer considered to be historically significant. The potential for public access to the potentially intact portion of CA-SBA-2341 would not be substantially changed by the proposed

Project. Therefore, the Project would result in a **less than significant** impact related to an increased potential for impacts to the archaeological sites.

c. *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

No human remains are known to exist within CA-SBA-1327 and CA-SBA-2341. However, the previously prepared Phase 2 archaeology report concludes that human remains may be sealed within the berms or beneath the tank pads. Project activities could result in adverse effects to both CA-SBA-1327 and CA-SBA-2341 because of the potential to encounter human remains. With the implementation of proposed mitigation measures CUL-1a through 1f, potential impacts resulting from the discovery of human remains would be **reduced to less than significant.**

5.5.3 Cumulative Impacts

The proposed Project would be required to implement measures to minimize the potential for significant impacts to cultural resources located on and near the project site. In addition, proposed mitigation measures identify specific requirements that must be implemented in the event that potentially significant resources are detected. Since the potential for the Project to impact known intact cultural resources is low, and mitigation measures would be implemented to reduce unanticipated impacts to a less than significant level, the Project would not result in cumulatively considerable impacts to cultural resources. . Therefore, potential cumulative impacts on cultural resources would be **less than significant.**

5.5.4 Mitigation Measures

Impacts Reduced to a Less Than Significant Level With Proposed Mitigation

Impacts to cultural resources that have the potential to result from the proposed Project can be reduced to a less than significant level with the implementation of the following mitigation measures.

IMPACT CUL-1 Ground disturbing activities at the Project site have the potential to result in significant impacts to cultural resources.

CUL-1a. A pre-construction meeting shall be conducted by an archaeologist and a Chumash Tribal representative. Meeting attendees shall include the archaeologist, local Chumash Tribal representative, construction supervisors, and heavy equipment operators to ensure that all parties understand the cultural resources monitoring program and their respective roles and responsibilities. All construction personnel who would work on the site during any phase of ground disturbance shall be required to attend the meeting. The names of all personnel who attend the meeting shall be recorded denoting that they have received the required training.

The meeting shall review the following: types of archaeological resources that may be uncovered; provide examples of common archaeological artifacts and other cultural materials to examine; describe why monitoring is required; what makes an archaeological resource significant; identify monitoring procedures; what would temporarily halt construction and for how long; describe a reasonable resource discovery scenario (i.e., feature or artifact); and describe reporting requirements and the responsibilities of the construction supervisor and crew. The meeting shall make attendees aware of prohibited activities, including vehicle use in protected areas, and educate construction workers about the inappropriateness of unauthorized collecting of artifacts that can result in impacts on cultural resources.

CUL-1b. An archaeologist and Chumash Tribal provided monitor shall be retained to monitor activities conducted on the project site, such as the removal of existing paving, initial grading activities, ground disturbing activities, and the removal of on-site trees.

CUL-1c. The archaeologist and Chumash Tribal Monitor shall have the power to temporarily halt or redirect project construction in the event that potentially significant cultural resources are exposed. Based on monitoring observations and the actual extent of project disturbance, the archaeologist shall have the authority to refine the monitoring requirements as appropriate (i.e., change to spot checks, reduce or increase the area to be monitored) in consultation with the UCSB Office of Campus Planning and Design. Upon completion of the monitoring program a monitoring report shall be presented to the UCSB Office of Campus Planning and Design and to the Central Coast Information Center (CCIC).

CUL-1d. In the event that archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until a Chumash Tribal representative and archaeologist has evaluated the nature and significance of the find. After the find has been appropriately evaluated, work in the area may resume. Significant cultural resources shall remain on-site at the direction of the Chumash Tribal representative and the University.

CUL-1e. If human ancestral remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner (or if necessary an osteologist/zooarchaeologist) has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. If avoidance of the remains is not

feasible, they shall be excavated and removed by a qualified archaeologist in the presence of the Most Likely Descendent. Repatriation of the exhumed remains and all associated items shall be conducted in accordance with the requirements of the Chumash Tribal Representative and the California Native American Graves Protection and Repatriation Act (Health and Safety Code 8010-8011).

CUL-1f. During the time that proposed demolition and restoration activities occur, an Environmentally Sensitive Area (ESA) shall be established consisting of the area outside the project fence for CA-SBA-2341. The ESA boundary shall be shown and labeled on project plans. No ground disturbance shall occur within the designated ESA. Additionally, orange construction or other suitable fencing shall be installed for the duration of the project at the boundary of the archaeological site to prevent construction personnel and equipment from incursion into the area. In no case shall mapped ESAs be identified as cultural resources to keep their location(s) confidential.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.6 ENERGY - Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	✓	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	✓	☐

5.6.1 Setting

Southern California Edison provides the electricity for the project site. Since the Ellwood Marine Terminal ceased operations in 2012, minimal electrical power is required for the site. The project site does not result in the substantial use of other energy resources.

5.6.2 Checklist Responses

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The proposed work for demolition, potential soil remediation, and loading line removal would require diesel fuel for heavy equipment operation and marine vessels. The Project's use of diesel and other vehicle fuels would occur over a very limited period of time (approximately 90-120 days) and would not be substantial. Proposed site restoration, monitoring, and maintenance activities would result in the generation of a very limited number of vehicle trips and the limited use of landscaping equipment over the Project's five year monitoring period. On-site electrical poles and lines would also be removed as part of the project and no long-term uses that require the use of energy resources are proposed. No new energy sources would be required for the project, and the Project's short-term energy use would be **less than significant**.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As mentioned in the "a" above, the Project would not result in substantial increase in energy demand and project-related traffic would result in a minimal short-term increase in fuel used by vehicles. Therefore, the project would have **less than significant** impacts related to conflicts with local energy-related plans.

5.6.3 Cumulative Impacts

The proposed Project would result in a small short-term increase in energy use to remove onshore and offshore facilities associated with the former operation of the EMT. After the completion of proposed project site demolition, remediation, and restoration activities, energy use at the open space site would be minimal. Therefore, the Project's cumulative energy impacts would not be cumulatively considerable and **less than significant**.

5.6.4 Mitigation Measures

The Project would not result in significant energy impacts and no mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.7 GEOLOGY AND SOILS - Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	✓	☐
ii) Strong seismic ground shaking?	☐	☐	☐	✓	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	✓	☐
iv) Landslides?	☐	☐	☐	✓	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	✓	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	✓	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	✓	☐

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐	✓
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	✓	☐

5.7.1 Setting

The proposed Project is located at elevations between 77 feet and 39 feet above sea level, and slopes gently southward to the ocean. The site has sandy loam deposits over clay and shale bedrock. Soils on the majority of the site are mapped as Concepcion fine sandy loam, 0-2% slopes, with small areas of Concepcion fine sandy loam, 2-9% slopes, eroded, present at the northeast and southeast corners of the fenced area, and Concepcion fine sandy loam, 15-30% slopes, eroded, present in the southwest portion. The More Ranch Fault is approximately 1,500 feet north of the project site, and although the fault is considered "active," the project site is not considered a "Special Studies Zone," "Earthquake Fault Zone" or a potential landslide zone.

The geologic conditions offshore in the area of the loading line consist of Tertiary bedrock (Monterey Formation) and Quaternary sedimentary bedrock (Sisquoc Shale). The offshore bedrock materials are overlain by sediments that vary in thickness. The Red Mountain fault is located approximately one mile south of the terminus of the loading line, and the North Channel fault is approximately two miles to the southwest.

2010 LRDP Requirements. The 2010 LRDP includes policies and project approval requirements related to the reduction of geologic hazard impacts and short-term construction-related erosion, sedimentation and water quality impacts. Requirements of the LRDP applicable to the Project are listed below.

> **WQ-02** – A. Proposed campus development shall be sited, designed, constructed, operated and managed in accordance with the water quality protection requirements set forth in this LRDP, including Appendix 3, Water Quality Protection, which is hereby incorporated in full, by reference as part of this policy. Appendix 3 requires new development, which entails construction or other activities or land uses that have the potential to release pollutants into coastal waters, to submit a water quality protection plan (see Appendix 3 for Construction Pollution Prevention Plan, Post Development Runoff Plan, Water Quality and Hydrology Plan, as applicable) with the NOID. Appendix 3 provides implementation-level requirements to develop each type of water quality protection plan that may be

necessary depending on the size and nature of the proposed development. Unless the Executive Director determines that future proposed changes to the contents of Appendix 3 are de minimis, such changes shall require an LRDP amendment. All revisions of Appendix 3 shall be timely published, including the date of the specific revision.

WQ-05 - The University shall site, design, construct and manage development to preserve or enhance vegetation that provides water quality benefits such as transpiration, vegetative interception, pollutant uptake, shading of waterways, and erosion control. Native vegetation shall be prioritized for use in water-quality treatment facilities such as bioswales and vegetated filter strips. Removal of existing vegetation on campus shall be minimized and limited to a pre-approved area required for construction operations. The construction area shall be fenced to define project boundaries. When vegetation must be removed, the method shall be one that will minimize the erosive effects from the removal. Temporary mulching or other suitable interim stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.

Policy WQ-09 - Minimize water quality impacts from construction by implementing best management practices, in compliance with Appendix 3, Water Quality Protection Program, including:

A. Construction shall be planned and managed to minimize impacts by such measures as limiting the project footprint, phasing grading activities to avoid rainy-season soil disturbance, implementing soil stabilization and pollution prevention measures, and preventing soil compaction unless required for structural support;

B. Whenever practical, land on the North and West Campus where there is a risk of erosion that may affect ESHAs, plan the project in increments of workable size which can be completed during a single construction season;

C. Erosion and sediment control measures are to be coordinated with the sequence of grading. Sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing and grading operations begin for campus development; and

D. Fill areas shall have suitable protection against erosion and shall not encroach on Devereux Slough, Storke Campus Wetlands, Campus Lagoon or any other natural watercourses or constructed channels on campus.

Policy WQ-10. Grading operations that have the potential to deliver sediment to wetlands, environmentally sensitive habitat areas, or coastal waters shall be scheduled during the dry months of the year (May through October). The construction timeline may be extended into the rainy season for a specific, limited length of time, based on an inspection of the site, and a determination that conditions at the project site are suitable for. Continuation of work may be allowed if appropriate erosion and sedimentation control measures are in place and will be maintained during the activity. If grading occurs during the rainy season (November through April), sediment traps, barriers, covers or other methods shall be used

to reduce erosion and sedimentation in compliance with Appendix 3, Water Quality Protection Program.

Policy WQ-11. Excavated materials shall not be deposited or stored where the material can be washed away by storm water runoff. Topsoil removed from the surface in preparation for grading and construction is to be stored on or near the site, where the stockpile area(s) will not impact natural vegetation, and protected from erosion while grading operations are underway, provided that the topsoil is also managed consistent with Policy ESH-14. Appropriate measures shall be taken to protect the preserved topsoil from erosion and runoff through such measures as tarping, jute netting, silt fencing, and sandbagging soil. After completion of such grading, topsoil is to be restored to exposed cut and fill embankments of building pads so as to provide a suitable base for seeding and planting. These requirements shall be incorporated into applicable water quality protection plans (Construction Pollution Prevention Plan, Post-Development Runoff Plan, and/or Water Quality and Hydrology Plan as applicable) for processing during the NOID process as described in Appendix 3, Water Quality Protection Program.

The water quality (WQ) policies listed above refer to LRDP Appendix 3, Water Quality Protection Program, which requires that the "*the planning, development, and maintenance of the UCSB campus lands shall be undertaken in a manner designed to protect, and were feasible restore the quality of coastal waters…*" Appendix 3 requires that a Construction Pollution Prevention Plan (CPPP) be prepared for projects that require approval of a Notice of Impending Development by the California Coastal Commission (such as the proposed Project) and that the CPPP describe temporary Best Management Practices (BMPs) that will be implemented to minimize erosion, sedimentation and pollution of runoff during project construction. The project-specific CPPP is to be prepared and submitted for review and approval as part of the project's Notice of Impending Development process. The preparation of a CPPP is required in addition to the project's compliance with the requirements of the California State Water Resources Control Board related to the preparation and implementation of a Stormwater Pollution Prevention Plan.

5.7.2 Checklist Responses

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

As described above, the EMT onshore facilities project site is not underlain by a known fault and is located approximately 1,500 feet from the More Ranch fault. In addition, the Project, including proposed habitat restoration, would not result in the development of structures that would have the potential to be adversely affected by movement of a fault. Therefore, the Project would result in **less than significant** ground rupture impacts.

ii) Strong seismic ground shaking?

It is likely that the project site will experience strong ground shaking at some time. However, the Project would not result in the development of structures that would have the potential to be adversely affected by movement along a nearby or distant fault. Proposed habitat restoration areas would not be adversely affected by a ground shaking event. Therefore, the Project would result in **less than significant** ground shaking impacts.

iii) Seismic-related ground failure, including liquefaction?

The Project would not result in the development of structures that would have the potential to be adversely affected by liquefaction. Therefore, the Project would result in **less than significant** ground failure impacts.

iv) Landslides

The proposed restoration/grading plan (Figure 2.3-1) is designed to return the project site contours to a condition comparable to that found on surrounding lands. Proposed project site contours would match adjacent areas and would recreate conditions similar to natural contours shown on an 1870 USGS topographic map. Project-related grading would result in approximately 12,100 cubic yards of cut and 10,890 cubic yards of fill. Proposed slopes would have a maximum height of approximately 11 feet and a maximum gradient of approximately 5:1 (horizontal:vertical), which is a slope gradient generally considered to be stable. In addition, the removal of the offshore loading line would not have the potential to result in a landslide hazard impact. Therefore, the Project would result in **less than significant** slope stability impacts.

b. *Would the project result in substantial soil erosion or the loss of topsoil?*

Grading that would be implemented by the Project would remove existing vegetative cover, would result in the use of temporary soil stockpiles, and would also result in the creation of new cut and fill slopes. The proposed grading activities would have the potential to result in significant short- and long-term sedimentation impacts to existing habitat areas on and adjacent to the project site, and the Pacific Ocean.

To minimize the potential for erosion-related impacts, the Project would be required to implement erosion control measures required by the LRDP water quality policies listed above and as identified in a project-specific CPPP and the SWPPP. Consistent with the LRDP policy requirements, proposed grading activities would not occur during the rainy season, and a variety of erosion and sediment control measures would be implemented, including but not limited to: the use of silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, jute or coir fabric, sandbag dikes, and temporary hydroseeding with native or sterile non-native seed mix to reduce runoff velocity, and enhanced infiltration and transpiration. Excavated soil would not be placed in or adjacent to open water channels, and off-site roads used during construction would be swept and

cleaned of accumulated earth and debris. Erosion control materials containing plastic would not be used on the project site.

The project site is over one acre in size and would also be required to file a Notice of Intent to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit, and to develop and implement a site-specific Storm Water Pollution Prevention Plan (SWPPP) prior to the start of ground disturbing activities. The primary objective of the SWPPP is to identify, implement and maintain appropriate best management practices to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from construction sites. A General Permit for stormwater discharges associated with construction activity was adopted by the State Water Resources Control Board on September 2, 2009 and amended for the second time in 2012 (Water Quality Order 2012-0006-DWQ), and went into effect on July 1, 2010. These requirements contain provisions for determining a project's risk level, and specific project site implementation requirements based on the results of the risk determination.

With the implementation of the water quality policies of the 2010 LRDP, and the preparation an implementation of erosion control BMPs consistent with an approved CPPP and SWPPP, the short-term impacts of the Project would be **less than significant** and no mitigation measures are required.

Upon the conclusion of grading activities, graded areas of the project site would be revegetated using native plants compatible with the habitat types that are to be established. All revegetation planting would be monitored to ensure that specified plant cover criteria are achieved. Sand excavated during loading-line removal from beach areas would be placed next to the excavation trench. Upon removal of the loading line, the excavated sand would be replaced into the trench to recontour the beach to its original configuration. With the implementation of proposed revegetation and monitoring provisions, the potential long-term erosion impacts of the Project would be **less than significant** and no mitigation measures are required.

c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

As described above, the proposed Project would not result in the creation of unstable slopes and would not result in the development of structures that may be affected by soil-related hazards. Therefore, the Project would result in **less than significant** geologic- and soil-related hazard impacts.

d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

The proposed Project would not result in the development of structures that may be affected by soil-related hazards. Therefore, the Project would result in **less than significant** expansive soil hazard impacts.

e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The Project does not propose to provide any structures that would require wastewater disposal. Therefore, the project would have a **no impact** associated with the use of septic systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project proposes to conduct remediation and restoration activities at the project site, and to return the site to a more natural condition. In order to reach proposed grades, the project would result in approximately 12,100 cubic yards of cut and 10,890 cubic yards of fill. All existing on-site soil berms would be flattened and soils would be re-distributed throughout the site. On-site grading would mostly affect previously graded soils and other surficial soils. Therefore, the potential for the Project to encounter unique paleontological resources is very low. Removal of the on-shore portion of the former oil loading line would temporarily disturb the ocean bluff located south of the EMT site. After the pipeline has been removed, disturbed soils would be replaced similar to their existing condition and the disturbed areas would be revegetated. Therefore, the Project would not result in a significant impact to a unique geologic feature. Overall, the Project's impacts on unique geologic features would be **less than significant**.

5.7.3 Cumulative Impacts

The Project would not increase the number of people, structures, or utilities that could be exposed to the potential effects of ground rupture, ground shaking and other geological hazards. Therefore, the Project would not result in a cumulatively considerable increase in potential geologic hazards that have the potential to affect the region. The Project's compliance with short- and long-term erosion hazard reduction requirements of the 2010 LRDP would ensure that site-specific impacts are reduced to a less than significant level. Other development projects in the Project region must comply with similar erosion control and reduction measures. Therefore, future development on the UCSB campus and other development in surrounding areas would not result in significant cumulative erosion-related hazard impacts. As a result, the Project's geologic hazard impacts would not be cumulatively considerable and **less than significant**.

5.7.4 Mitigation Measures

The Project would not result in significant impacts related to geological hazards and no mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.8 GREENHOUSE GAS EMISSIONS – Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	✓	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	✓	☐

5.8.1 Setting

Causes and Effects of Climate Change. Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred because it indicates that there are other related effects in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. As reported by the United Nations Intergovernmental Panel on Climate Change (IPCC, 2013), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence that the global average net effect of human activities since 1750 has been one of warming. The prevailing scientific opinion on climate change is that most of the observed increase in global average temperatures since the mid-20th century is likely due to the observed increase in anthropogenic greenhouse gas (GHG) concentrations (IPCC, 2013).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are 1) present in the atmosphere naturally, 2) are released by natural sources, or 3) are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). Water vapor is excluded from the list

of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and sulfur hexafluoride (SF_6). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2E), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By contrast, CH_4 has a GWP of 21, meaning its global warming effect is 21 times greater than carbon dioxide on a molecule per molecule basis.

There is a substantial body of scientific evidence that climate change is occurring due to an increase in the concentration of greenhouse gases in the Earth's atmosphere. California's Fourth Climate Change Assessment (2018) summarizes the current understanding of climate impacts in California. The Assessment concludes that there is very high scientific confidence that temperatures in the State are warming and snow pack is declining; and there is very high scientific evidence that sea levels are rising. There is also medium-high confidence that the number of heavy precipitation events, the occurrence of drought, and area burned by wildfire is increasing.

Estimates of future sea level elevations vary considerably based on assumptions regarding greenhouse gas emission control effectiveness and other factors. The *California Coastal Commission Sea Level Rise Policy Guidance* (2015) document recommends using sea level rise estimates prepared by the National Research Council. Those estimates predict that for most of California, sea level will rise two to 12 inches by 2030; five to 24 inches by 2050; and 17 to 66 inches by 2100. Short-term increases in sea level due to large storms are likely to be of greater concern to coastal infrastructure and development in coastal areas over the next several decades than long-term sea level rise rates (California, 2010).

Climate change results from greenhouse gas emissions "…*generated globally over many decades by a vast number of different sources*" rather than from greenhouse gas emissions generated by any one project (County of Santa Barbara Planning and Development, 2008). As defined in CEQA Guidelines Section 15355 and discussed in Section 15130, "…a cumulative impact consists of an impact which is created as a result of the combination of the [proposed] project…evaluated…together with other projects causing related impacts." Therefore, by definition, climate change under CEQA is a cumulative impact.

5.8.2 Checklist Responses

a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Short-Term Emissions. The proposed Project is not a stationary source project. It is primarily a short-term (approximately four months) construction project and includes activities, such as off-road and mobile equipment use for onsite demolition and grading activities and trucking of debris to offsite disposal facilities. Additional short-term emissions would result from the limited use of vehicles and equipment associated with proposed revegetation monitoring and maintenance activities that would occur over a five-year period.

To estimate Project-related short-term onshore emissions, the CalEEMod 2022.1 computer model was used and the complete analysis results are included in Appendix B. Offshore abandonment GHG emissions were estimated using emissions factors from CARB's OFFROAD 2021 model and the San Pedro Bay Ports Emissions Inventory. Total onshore and offshore abandonment and restoration activities that would result from the proposed Project would generate an estimated total of 1,245 metric tons of carbon dioxide equivalents. Short-term construction-related GHG emission are typically amortized over the lifetime of a project, which is generally assumed to be a 30-year period. Amortized over a 30-year period, the Project's short-term GHG emissions would be approximately 41 metric tons of CO_2E per year.

A project that results in the generation of approximately 41 metric tons of GHG per year over a 30-year per would generally not be considered a substantial source of GHG emissions. For comparison purposes, as part of their January 2021 update to the *Environmental Thresholds and Guidelines Manual*, Santa Barbara County adopted an interim 300 $MTCO_2E$ per year GHG emissions screening threshold to apply to all non-exempt, non-stationary source projects. This threshold applies to both direct and indirect GHG emissions, and construction-related GHG emissions are amortized across the lifetime of the project when compared to the threshold. Short-term GHG emissions from the EMT project would be primarily from non-stationary sources (e.g., construction vehicle use) and would not be a substantial source of new emissions. Therefore, the short-term GHG emissions of the project would not be substantial and would result in a **less than significant** impact on the environment.

Long-Term Emissions. The proposed project would restore native habitats on the project site and would not result in the development of land uses that would directly or indirectly be a substantial source of GHG emissions. The establishment of new vegetation on the project site would also act as a carbon sink, which would contribute to the sequestration of atmospheric carbon. Therefore, the Project's long-term GHG would be **less than significant.**

Other Climate Change Effects. The effects of global climate change may result in an increase in sea level, more frequent and severe floods, and an increase in wildfire hazards.

The project site is approximately 39-77 feet above sea level, therefore, a rise in sea level of up to 66 inches by the year 2100 would not result in adverse direct effects to the project site. As described in Section 5.10 (Hydrology and Water Quality) of this IS/MND, the project site is not located within a 100-year floodplain and the nearest designated floodplain areas are adjacent to the Devereux Slough, approximately 1,300 feet east of the project site; and adjacent to Devereux Creek, approximately 1,200 feet north of the project site. Due to the elevation of the Project site, a climate change induced increase in the severity of flood events would not result in significant flooding-related impacts.

High fire hazard areas are generally located in areas with steep slopes and extensive areas of highly flammable native or other fire-prone vegetation. As described in IS/MND Section 5.20 (Wildfire) the project site is not located in a designated high fire hazard area. Therefore, the Project would not be adversely affected by a climate change-related increase in wildfires.

In conclusion, the proposed Project would not be significantly impacted by climate change-induced increases in sea level, flooding, or wildfire events. Therefore, these effects of global climate change would have **less than significant** impact on the Project.

b. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

UCSB's Draft 2016 Climate Action Plan indicates that an interim GHG emissions reduction goal to attain year 1990 emissions levels by 2020 was achieved in 2014. In November 2013, the UC President announced an initiative to achieve complete carbon neutrality (direct emissions and purchased electricity) in UC operations by 2025. Attainment of this goal may be achieved by actions such as procuring large quantities of renewable electric power, increasing campus energy efficiency and renewable energy projects, procuring bio-gas to substitute for natural gas and managing carbon allowances and offsets.

In October, 2022, Governor Gavin Newsom signed AB 1279, the California Climate Crisis Act, which requires the State to achieve net zero greenhouse gas emissions (GHG) as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter. The bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels, and directs the California Air Resources Board to work with relevant state agencies to achieve these goals.

A potential method for achieving the GHG reductions specified by AB 1279 being considered by the UC system is the Science Based Targets initiative (SBTi). The SBTi:

- Defines and promotes best practices in emissions reductions and net-zero targets in line with climate science.
- Provides target setting methods and guidance to set science-based targets in line with the latest climate science.

- Includes a team of experts to provide independent assessment and validation of targets.

As described above, the proposed project would be a short-term source of GHG emission, and when amortized over a 30-year period would result in a de minimis annual contribution to campus-related emissions. Therefore, the Project would not conflict with the greenhouse gas emission targets identified by the Draft 2016 Climate Action Plan, or conflict with greenhouse gas reduction measures that may be identified should the SBTi, or some other similar program, be implemented by the University in the future. Therefore, the Project's greenhouse gas emission impacts would be **less than significant.**

5.8.3 Mitigation Measures

The proposed Project would not result in significant impacts related to greenhouse gas emissions and no mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.9 HAZARDS AND HAZARDOUS MATERIALS – Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✓	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	✓	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐	✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐		✓	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✓	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	✓	☐
g) Expose people or structures, either directly or indirectly, to a significant risk	☐	☐	☐	✓	☐

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
of loss, injury or death involving wildland fires?					

5.9.1 Setting

Site Conditions. The project site was continuously used for oil storage and transportation operations between 1929 and 2012. Historically, pipelines, tanks, and associated equipment have been located throughout the 17.54 -acre project site. A Tier 1 Site Assessment of the project site was conducted in October 2012 (InterAct, 2013). Hydrocarbons were found to be highly localized in surface soil (<3 feet) in the oil tank bermed areas and at 12-14 feet below ground surface (bgs) in soil near the ballast water pond. Visual observations supported the interpretation of the gathered data. Tier 1 Environmental Screening Levels (ESLs) were exceeded for several individual Polycyclic Aromatic Hydrocarbons (PAHs) and Volatile Organic Compounds (VOCs) in soil cores collected at stations near the ballast water pond. The VOCs and PAHs compounds detected in these samples are commonly found in crude oil and its products. No ESL PAH or VOC exceedance were found in samples collected from the tank berm area. Additionally, of the 17 metals analyzed, only two, lead and arsenic, were above corresponding ESL levels. The Tier 1 report identified lead-based paint chips as a possible source where the lead ESL was exceed near the project site facilities. Arsenic was found to be above its respective ESL at all testing stations. One sample indicated elevated cadmium near the control building.

Based on the results of the Tier 1 site assessment, additional information is needed to further assess the extent of remedial action for the site. Additional assessment is required to sample areas that were inaccessible in the Tier 1 assessment (e.g., under the storage tanks). The scope and design of the future remedial action would require data from the additional site assessment, which would occur following the removal of the project's facilities.

Hazardous Material Management. It is the policy of the University of California to maintain a reasonably safe environment for its students, academic appointees, staff and visitors. Campus operations are to be conducted in compliance with applicable regulations and with accepted health and safety protocols.

The UCSB Office of Environmental Health and Safety (EH&S) has the primary responsibility for coordinating the on campus management of hazardous materials and laboratory safety, and assists the campus in meeting its obligations for compliance with State and Federal health, safety and environmental regulations. Programs and services administered by EH&S pertain to asbestos and lead safety, biological safety, emergency management, environmental compliance, environmental health, fire protection, hazardous material management and disposal, industrial hygiene, lab safety, stormwater management, and radiation and laser safety.

Wildfire. The UCSB Campus is not located within a designated "very high fire safety hazard zone" as determined by Cal Fire (2008). However, the 2010 LRDP Final EIR states that

large, grassy open areas on the campus (such as the proposed project site) have a "moderate" wildfire risk.

Airport Hazards. The western end of the main east-west runway at the Santa Barbara Municipal Airport is approximately two miles northeast of the project site.

5.9.2 Checklist Responses

a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

No long-term development is proposed at the project site that would include use, storage or distribution of hazardous materials, and the proposed restoration of on-site habitat areas would not require the use of substantial amounts of hazardous materials. Small amounts of hazardous materials associated with fueling construction equipment and marine vessels would be used and stored during demolition and restoration activities. The potential for an accidental release of small quantities of hazardous materials during project activities would be minimized through the implementation of standard best management practices. Therefore, the Project would result in **less than significant** impacts related to the routine use of hazardous materials.

b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Hazardous Material Use. The oil storage tanks at the project site that would be demolished were degassed and cleaned in 2020. There is a potential that some oil residue remains in the onshore pipelines that are to be removed, which could result in a small leak or spill. The impacts of such an event would be minimized by implementing the spill response procedures included the Spill Prevention, Control, and Countermeasure Plan (SPCCP) prepared for the project site (Rincon, 2019) prior to the cleaning and degassing of the on-site oil tanks. Compliance with SPCCP and implementation of standard hazardous material use best management practices would minimize the potential for a large uncontrolled release of hazardous material. The potential for a large uncontrolled release of hazardous materials at the project site would be low and is considered to be a **less than significant** impact.

Asbestos. Due to the age of the on-site structures, it is possible that asbestos containing materials were used in their construction. Exposure to asbestos-containing materials has the potential to result in health impacts to construction workers and other persons at the project site. The management of asbestos-containing waste is regulated by a number of local, state and federal agencies, and the Santa Barbara County Air Pollution Control District (APCD) also issues permits for building renovation/demolition projects that involve the removal of asbestos-containing materials. APCD Rule 1001, National Emission Standards for Hazardous Air Pollutants – Asbestos, provides notification and reporting requirements related to potential emissions of asbestos fibers.

In accordance with University policies and other regulatory requirements, asbestos identification and abatement (removal of asbestos containing materials) would occur prior to the demolition of the on-site structures. A required APCD demolition notification would be submitted at least 10 days prior to any structure demolition operations, and the removal of asbestos-containing materials would be conducted in compliance with OSHA workplace regulations. Any asbestos-containing material removed from the project site would be transported in accordance with regulations that have been adopted by the U.S. Department of Transportation, and material would be disposed in a manner consistent with requirements of the California Department of Toxic Substances Control. Compliance with existing regulations regarding the removal, handling, transportation and disposal of asbestos-containing waste would be adequate to reduce potential project-related health and safety impacts resulting from potential exposure to asbestos emissions to a **less than significant level** and no mitigation measures are required.

Lead-Based Paint. Based on the results of the Tier 1 Site Assessment, it is likely that lead-based paints have been used at the project site. The use of lead based paints has the potential to result in soil contamination if the paint has chipped or peeled. Lead-based paint and soil with lead contamination are regulated by several state and federal agencies.

The demolition of a structure that has lead based paint surfaces would have the potential to result in significant short-term impacts to construction workers and other persons at the project site. To avoid this potential impact, materials that contain lead based paint that is flaking would be removed prior to the start of demolition activities. There would be a post demolition inspection of the ground and removal of any identified paint chips. The removal of flaking materials from the site that contain lead based paint prior to demolition, and compliance with applicable OSHA requirements, including the implementation of dust control measures, and worker protection would be adequate to reduce potential short-term exposures to lead based paint to a **less than significant** level and no mitigation measures are required.

Offshore Operations. Project-related vessel operations would require the use petroleum hydrocarbon materials such as fuels and lubricants, and onboard operations may require the use of other potentially hazardous substances. The loading line to be removed was previously flushed to remove oil products, however, residual hydrocarbon substances may remain in the pipeline. An accidental release of hydrocarbons or other contaminants from a vessel or the loading line would have the potential to release hazardous materials into the environment.

To reduce the potential for a release of hydrocarbons from the loading line, a seep tent would be used to contain potential leakage into the marine environment. To reduce the potential effects of a hazardous material release resulting from vessel operations, project-related vessels would not refuel at the project site, and proposed mitigation measure BIO-12b requires the preparation of an Oil Spill Prevention and Contingency Plan that would be implemented in the event of a small spill of hazardous material. In the event of a large hazardous substance release numerous regulatory requirements would be implement. These regulations include, but not limited to, the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPRA), which established the Oil Spill Prevention and Response Division of the California Department of Fish and Wildlife to provide protection

of California's natural resources from petroleum discharges. OSPRA covers all aspects of marine oil spill prevention and response in California, and established an Administrator who is given broad powers to implement the provisions of the Act. In addition, California Hazardous Materials Spill/Release Notification Guidance, administered by the California Governor's Office of Emergency Services, specifies required notification and response procedures to be implemented in the event of an accidental release. With the implementation of these potential contaminant release impacts from offshore operations would be **reduced to less than significant**.

c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The buildings nearest the project site, including Orfalea Family Children's Center are located more than a quarter-mile from the site. Therefore, the Project would have a **less than significant** impact on schools or other adjacent buildings.

d. *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The Ellwood Marine Terminal site is not listed on hazardous materials sites compiled pursuant to Government Code Section 65962.5.

A recent query of the California State Water Resources Control Board GeoTracker data base (http://geotracker.waterboards.ca.gov) indicates that soil and groundwater contamination is known to exist at the Ellwood Marine Terminal site. Soil and groundwater contamination has the potential to result in significant environmental impacts, such as air emissions, and adverse effects on water quality and wildlife.

The GeoTracker data base reports that the 2013 Tier 1 site assessment previously conducted at the project site documented the type and extent of potential contamination at the facility, with sampling focused on areas close to known or suspected sources. In addition, further assessment is required after demolition of the project site facilities to sample areas that were inaccessible in the Tier 1 assessment, including soil underneath the two on-site oil storage tanks. An objective of the proposed Project is to remove the existing oil storage tanks and to complete the required site assessments as required by the Water Resources Control Board.

Policies of the 2010 LRDP also address the remediation of contamination at the project site. Specifically, Policy ESH-46 requires, in part:

> **Policy ESH-46 –** The Ellwood Marine Terminal (EMT) Facilities shall be removed and the site shall be restored to maximize habitat values. The EMT site shall be evaluated for soil and groundwater contamination, and a remediation plan shall be prepared and submitted to campus Environmental Health and Safety that complies with all federal and state regulations to clean and/or remove the contaminated soil or groundwater.

Proposed mitigation measure HAZ-1a requires that an additional assessment be conducted at the project site, and that a draft and final contamination remediation plan be prepared. With the implementation of a remediation plan that has been approved by the University, the California Coastal Commission, and the Regional Water Quality Control Board (RWQCB), existing contamination conditions at the project site would be **reduced to less than significant**.

The proposed Project would convert the project site to restored open space and native habitat, therefore, the Project would not result in the creation of a significant hazard to the public or the environment. Therefore, implementation of the proposed project would result in a **less than significant** impact related to new development at the project site.

e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

The Project would not result in the development of any new buildings or result in large concentrations of people on the project site. Therefore, the Project would not result in structure height conflicts with aircraft operations, and the Project would not result in the installation of lights or reflective surfaces that could adversely affect aircraft operations. Therefore, the project would result in **less than significant** airport-related safety impacts.

f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Access to the project site is from Venoco Road, a paved roadway that intersects with Storke Road near the project site. Storke Road is an arterial roadway in the project area that provides access to US 101. The Project would not result in any short- or long-term modifications to Storke Road or other roadways in the project area, or result in construction activities that would temporarily close roadway travel lanes. The limited amount of traffic that would be generated by demolition, remediation and site restoration traffic would not result in impacts related to emergency access into or out of the project area. Therefore, the Project would have a **less than significant** impact related to emergency response or evacuation plans.

g. *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

The project site is not located in a designated very high fire hazard safety area, however, the operation of construction equipment on the site would have the potential to create sparks or other ignition sources that could result in a vegetation fire. Vegetation on the project site predominately consists of non-native grasses, plants and trees, with some interspersed areas that support native plants and trees. Proposed grading and restoration activities would remove non-native vegetation from the project site, which would minimize the potential for a fire while demolition and restoration activities are being conducted. The Project would not result in the construction of any new structures or increase on-site

population that would have the potential to interfere with future fire suppression operations on or near the project site. Therefore, the project would result in a **less than significant** wildland fire impact.

5.9.3 Cumulative Impacts

The short-term use of hazardous materials or the generation of hazardous waste at the project site is not expected to be substantial, and contaminated soil that is detected would be removed and disposed and/or remediated as required by the University and regulatory agencies. The proposed open space use of the site would not result in the long-term use of substantial amounts of hazardous materials or result in the generation of substantial amounts of hazardous waste. In addition, the Project would not result in any new structural development or result in an increase in population on the project site or in the Project area. Therefore, the Project's contribution to hazard-related impacts in the project region would not be cumulatively considerable and the Project's cumulative hazard impacts would be **less than significant**.

5.9.4 Mitigation Measures

The following mitigation measure would reduce the project's hazardous materials impacts to a less than significant level.

IMPACT HAZ-1 Existing contamination at the project site has the potential to result in significant environmental impacts.

HAZ-1a An additional Site Assessment Plan and Remediation Plan for the project site shall be submitted for Regional Water Quality Control Board (RWQCB) and UCSB approval. The Site Assessment Plan shall be designed to document the type and extent of contamination in the project site's soil, sediment, surface and ground water with sampling focused on areas not accessible during the Tier 1 Site Assessment. The additional Site Assessment Plan and Site Remediation Plan shall be reviewed and approved by RWQCB and UCSB prior to the start of proposed demolition activities. A final Remediation Plan derived from the sampling and analysis of the Site Assessments shall be provided to RWQCB and UCSB for review and approval. Any remediation in and around the ballast pond shall evaluate potential impacts to ecological resources. Excavation of surficial soil may occur during the demolition activities or prior to implementing the grading plan.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.10 HYDROLOGY AND WATER QUALITY - Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality ?	☐	☐	☐	✓	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	✓	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
i) result in a substantial erosion or siltation on- or off-site;	☐	☐	✓	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	✓	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or?	☐	☐	☐	✓	☐
iv) impede or redirect flood flows?	☐	☐	☐	✓	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	✓	☐

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	✓	☐

5.10.1 Setting

The project site is on a knoll located west of and above the elevation of tidal wetlands and floodplains of the Devereux Slough. The project site slopes gently to the west to a small unnamed drainage less than 1,000 feet from the Pacific Ocean. Another, possibly spring-fed drainage abruptly cuts across the knoll at the south project site boundary and continues its way eastward to the coastal dunes behind the sandy beach. The isolated knoll is its own watershed, that is, vegetation on the knoll depends only on rainfall and fog for water.

The Project site is located along the landward edge of Santa Barbara Channel along an area known as the Ellwood Coast. Natural seeps found along the coasts of Santa Barbara and Ventura Counties discharge significant quantities of oil and tar to the nearshore waters of the Santa Barbara Channel. Studies conducted in the late 1970s found that between 16,000 and 240,000 barrels of oil enter the Channel annually from natural seeps. Consequently, the intertidal zone along the Ellwood Coast in the Project vicinity, frequently experiences naturally occurring oil and tar from the Coal Oil Point Seep (CSLC, 2012).

LRDP Policy Requirements

The 2010 LRDP includes policies and project approval requirements related to the reduction of potential water quality impacts that the Project would be required to implement. Water quality policies applicable to the Project include WQ-01, WQ-03, WQ-04, WQ-05, , WQ-09, WQ-10, and WQ-11. The Project's consistency with these policies is evaluated in IS/MND Section 5.11 (Land Use and Planning).

2010 LRDP Appendix 3, Water Quality Protection Plan, includes requirements for development that requires the approval of a Notice of Impending Development from the California Coastal Commission. Appendix 3 requires the preparation and approval of a Construction Pollution Prevention Plan that describes temporary Best Management Practices (BMPs) a project will implement to minimize erosion and sedimentation during construction, and to minimize pollution of runoff by construction chemicals and materials. Appendix 3 also requires the preparation and approval of Post-Development Plans. A Post-Development Runoff Plan is required to describe the site design and runoff source control measures a project will implement to protect coastal waters after development is completed. A Water Quality and Hydrology Plan requires a polluted runoff and hydrologic site characterization, sizing standard for BMPs, use of low impact development approach to retain runoff on-site, and documentation of the expected effectiveness of proposed BMPs.

5.10.2 Checklist Responses

a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Soils under the on-site oil storage tanks may be contaminated with hydrocarbons and would be tested. Soil to the south and west of the ballast water pond would also be tested. Impacted soils that are above acceptable levels specified by the Regional Water Quality Control Board would be remediated, such as through excavation and transportation to an appropriate disposal facility. Therefore, the Project would have a beneficial effect on groundwater quality resulting from the remediation of contaminated soils. Potential project-related impacts on surface and groundwater quality would be **less than significant**.

The removal of the offshore loading line would result in increased turbidity from sediment re-suspension in near shore areas. The affected area would be relatively small compared to the surrounding available marine habitat, and it is expected the sandy sediment material would be redistributed quickly back onto the seafloor. In addition, proposed mitigation measure WQ-1a requires the use of sediment curtains to minimize turbidity impacts if ocean conditions if ocean conditions warrant their use (see item "c" below). Therefore, increased turbidity-related impacts would be short-term, local, and **less than significant** and no additional mitigation is required.

b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The Project's short-term water use would be for dust control and the establishment of vegetation planted on-site as part of the proposed restoration plan. The Project would not require the long-term use of groundwater resources for the maintenance of native plants and habitats. Therefore, the Project does not propose any actions that would result in a substantial use of groundwater supplies. The Project would create wetlands, which would pond water and contribute to groundwater recharge. In addition, the site is located in an area where groundwater is not a resource for drinking water supply due to salinity levels. The proposed removal for the offshore loading line would have no effect on groundwater conditions. Therefore, the Project's impacts to groundwater supplies would be **less than significant**.

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i) *result in a substantial erosion or siltation on- or off-site.*

The General Construction Permit (GCP), Order No. 2012-0006-DWQ, NPDES Permit No. CAS000002, last updated by the SWRCB in July 2012, regulates storm water and non-storm water discharges associated with construction activities disturbing one acre or greater

of soil. Construction sites that qualify must submit a Notice of Intent (NOI) to gain permit coverage or otherwise be in violation of the CWA and California Water Code.

The GCP requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for each individual construction project greater than or equal to one acre of disturbed soil area (regardless of the site's Risk Level). The SWPPP must list Best Management Practices (BMPs) the discharger will use to control sediment and other pollutants in storm water and non-storm water runoff, and the BMPs must meet the Best Available Technology and Best Conventional Pollutant Control Technology performance standards. Additionally, the SWPPP must contain a visual monitoring inspection program; a chemical monitoring program for sediment and other "non-visible" pollutants to be implemented based on the Risk Level of the site, as well as inspection, reporting, training and record-keeping requirements.

The EMT Project would disturb more than one acre of land area, therefore, the entire Project would be subject to the storm water discharge requirements of the GCP. The Project will require submittal of a Notice of Intent, SWPPP, Risk Assessment, and other Project Registration Documents required by the GCP prior to the commencement of soil disturbing activities. In the Santa Barbara Region, the State Water Resources Control Board is the permitting authority, while the Central Coast Regional Water Quality Control Board provides local oversight and enforcement of the GCP.

The project must obtain a Waste Discharge Identification Number (WDID) and upload project documentation to the Stormwater Multiple Application and Report Tracking System (SMARTS). Conformance with the CGP requirements includes the following:

- On-going erosion control, sediment control and tracking controls for the entire duration of the project.
- Perimeter protection and dust control protection.
- Weekly inspections.
- Rain Event Action Plans each time the forecast calls for 50% chance of rain or greater.
- Water quality field monitoring for pH and turbidity for runoff leaving the site.
- Evaluation of BMPs following a rain event and corrective action plans to remedy any deficiencies.
- Annual report summaries on the SMARTS website.

In addition to conformance with the CGP, the Project would be required to develop and implement a project-specific Construction Pollution Prevention Plan (CPPP), as required by LRDP Policies WQ-9 and WQ-10, for construction operations conducted on the

onshore portion of the project site. The CPPP puts a high emphasis on erosion and sediment control. Additional short-term water quality protection measures would be identified in the CPPP, such as rainy season grading restrictions and incorporation of sediment basins downstream of actively graded areas to protect downstream resources. In addition, routine inspections are required to ensure the CPPP is kept up to date with the changing field conditions and performance of the implemented BMPs.

The Project may use sand jetting to expose portions of the loading line located on the beach and surf zone. Increased turbidity from sand jetting could affect marine water quality. Increased turbidity is of concern because kelp forests are sensitive to reductions in the penetration of ambient light, and kelp stands lie within 328 feet (100 m) of the pipeline corridor. These kelp stands developed on artificial reefs that were left after the demolition of sixteen petroleum piers, which were originally located along this section of the Ellwood coastline. Linear kelp stands that are aligned perpendicular to the coastline match the distribution of hard substrate mapped.

Nearshore kelp beds adjacent to sandy beaches are occasionally subjected to naturally high turbidity associated with re-suspension from shoaling surface-gravity waves. Because of the naturally increased nearshore turbidity, it is unlikely that temporary re-suspension of sediments during jetting would cause significant reductions in the transmission of natural light that regularly exceed the range of ambient conditions, as defined in the California Ocean Plan Objective C.3[1]. However, under certain conditions, such as prolonged periods of calm water conditions in the littoral zone, turbidity impacts may have the potential to result in a significant impact. This potential impact could be substantially reduced with the implementation of proposed mitigation measure WQ-1a, which requires the installation of sediment curtains if ocean conditions warrant their use. With the implementation of this mitigation measure, potential turbidity impacts would be **reduced to less than significant.**

As a result of proposed and required construction-related water quality measures, including conformance with LRDP policies, GCP requirements and CPPP requirements, and implementation of the post-construction habitat restoration plan, the Project would not violate any water quality standards or waste discharge requirements and potential erosion-related water quality impacts would be **less than significant.**

ii) *substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.*

The proposed project would promote onsite percolation rates and decrease the rate and amount of surface water runoff by reducing the amount of impervious area on site. The proposed Project would have the beneficial impact of restoring the flow of the stormwater to more natural conditions through the implementation of the proposed restoration plan. The proposed removal for the offshore loading line would have no effect on surface water runoff. Therefore, the Project's impacts related to an increase in surface runoff would be **less than significant**.

[1] California Ocean Plan Objective C.3 states "Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.

iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.*

As described in item "ii" above, the Project's impacts related to an increase in surface runoff would be **less than significant**.

iv) *impede or redirect flood flows?*

The project would not result in new development that would have the potential to impede or redirect flood flows. Proposed on-site topography contouring would not substantially change the direction of runoff, and is designed to convey the surface flows in a manner similar to conditions that existing prior to the construction of the oil storage facility. The proposed removal for the offshore loading line would have no effect on flood flows. Therefore, the Project would result in **less than significant** changes to existing flood flow conditions.

d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Flood Hazard. The project site is not located within a 100-year floodplain and the nearest designated floodplain areas are adjacent to the Devereux Slough, approximately 1,300 feet east of the project site; and adjacent to Devereux Creek, approximately 1,200 feet north of the project site. In addition, the Project would not be a substantial short- or long-term source of potential pollutants. Therefore, potential flood-related hazards would be **less than significant.**

Seiche. Existing water bodies in the project site area (e.g., the Devereux Slough) and proposed wetland areas on the project site would be too shallow to create a seiche (a wave or wave-line movement in a standing body of water) of noticeable amplitude. Therefore, potential seiche-related hazards would be **less than significant.**

Tsunami. The California Department of Conservation Santa Barbara County Tsunami Hazard Areas map (https://www.conservation.ca.gov/cgs/tsunami/maps/santa-barbara) shows that potential tsunami run-up area extends along an area that is south of and adjacent to the project site, but does not extend onto the site. The Pacific Tsunami Warning Center is operated by NOAA and would likely be able to provide advance notice of an oncoming wave. If a tsunami were to occur while site demolition and restoration activities were occurring, such a warning would allow for equipment and crew to evacuate the area. In the unlikely event of a tsunami affecting the project site, the proposed Project would not result in development of land uses that would have the potential to result in the release of pollutants. Therefore, potential tsunami-related hazards would be **less than significant.**

e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The proposed Project would not be a substantial source of pollutants and would have the beneficial effect of remediating/removing contaminated soil from the project site. The Project area is not subject to the requirements of a sustainable groundwater management plan and the Project would not use a substantial amount of groundwater. Therefore, the Project's groundwater-related impacts would be **less than significant.**

5.10.3 Cumulative Impacts

Cumulative development projects in Project area over one acre in size would be required to comply with the NPDES General Construction Permit and prepare a SWPPP to control erosion and runoff water quality impacts during construction. Cumulative development projects on the UCSB campus less than one acre in size would be required to comply with 2010 LRDP policies related to the protection of surface and groundwater resources. In addition, the Project would not be a substantial long-term source of pollutants and would have the beneficial effect of remediating existing soil and groundwater contamination conditions that resulted from past operations of the EMT. It is not anticipated that the removal of the offshore portion of the oil loading line would result in or contribute to a cumulatively considerable increase in water quality impacts because the pipeline was previously flushed and it is expected that it now contains seawater. In addition, potential sand jetting impacts to kelp beds and rocky reefs would be limited to the Project area and would be minimized with the implementation of proposed mitigation measure WQ-1a. Therefore, the Project's cumulative hydrology and water quality impacts are not cumulatively considerable and potential cumulative impacts would be **less than significant**.

5.10.4 Mitigation Measures

Impacts Reduced to a Less Than Significant Level With Proposed Mitigation

Potential temporary impacts to kelp beds and reef habitat resulting from sand jetting operations can be reduced to a less than significant level with the implementation of the following mitigation measure.

IMPACT WQ-1 Sand jetting operations that may be used to uncover the loading line in nearshore areas has the potential to result in turbidity and reduced light impacts to kelp beds and rocky reef habitat.

WQ-1a. If sand jetting within the littoral zone is conducted, such as during loading line removal, and ocean conditions are favorable for curtain deployment, floating sediment curtains shall be deployed downstream of the jetting location to protect nearby kelp beds and rocky reef habitat.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.11 LAND USE AND PLANNING - Would the project:					
a) Physically divide an established community?	☐	☐	☐	☐	✓
b) Cause a significant environmental effect due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	✓	☐	☐

5.11.1 Setting

2010 LRDP. Land use planning requirements for the UCSB campus are included in the 2010 Long Range Development Plan (LRDP), which was certified by the Regents in September 2010 and was certified by the California Coastal Commission in November, 2014. The 2010 LRDP identifies and describes the physical development needed to achieve the campus's academic goals through 2025; is a land use plan for the development of future campus facilities; and addresses the requirements of the California Coastal Act of 1976.

The project site was used continuously for oil storage and transportation operations from 1929 to 2012. Historically, pipelines, tanks, and associated equipment have been located throughout the 17.54 -acre project site. The 2010 LRDP applied an "Open Space" land use designation to the EMT Demolition and Restoration Project site.

California Coastal Act. The Coastal Act (Pub. Resources Code, § 30000 et seq.) was enacted in 1976 after State voters approved the Coastal Conservation Act in 1972. The Act establishes policies and guidelines that provide direction for the conservation and development of the California coastline, and also established the CCC as the State's coastal management, regulatory, and permitting agency for all development within the California coastal zone. Project-related operations to remove the offshore portion of the EMT loading line must be consistent with Coastal Act policies.

5.11.2 Checklist Responses

a. *Physically divide an established community*?

The project site is located in the western portion of the UCSB North Campus, and is bounded by the UCSB South Parcel to the north, the Coal Oil Point Reserve (COPR) to the south, and by undeveloped property in the City of Goleta's jurisdiction to the west. The adjacent Sperling Reserve on the Ellwood Mesa is designated as open space by the City of Goleta.

Proposed demolition and restoration activities would be confined to the project site and would not occur in any adjacent residential or open space areas. Vehicle access to the project site would continue to be provided from Venoco Road, and no changes to existing access or circulation patterns in the Project area would be required to implement the Project. Therefore, the Project would not divide or isolate any uses on or near the project site and would have **no impact** related to this significance criterion.

b. *Cause a significant environmental effect due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The 2010 LRDP identifies five major goals and identifies how elements of the LRDP implement each of the goals. The five goals of the 2010 LRDP include:

- Mature the academic programs
- Strengthen the campus form
- House students, faculty and staff
- Integrate sustainable practices
- Contribute to regional solutions

The EMT Demolition and Restoration Project would be consistent with the 2010 LRDP goals described in Policy ESH-46. The intent of the project is to return the project site to a more natural condition, including removing onsite contaminated soils and re-contouring and replanting the site with native species. The project would restore the site to a more natural landscape that would be more compatible with the surrounding properties. Implementation of the mitigation measures identified in this document would ensure that the proposed project is constructed in a manner that is consistent with resource policies, including biological resource policies and cultural resource policies.

Proposed development projects undertaken on the UCSB campus must be consistent with the policies of the 2010 LRDP. An evaluation of the consistency of the onshore portion of the EMT Demolition and Restoration Project with applicable LRDP policies is provided on Table 5.11-1. An evaluation of the consistency of the removal of the offshore portion of the EMT loading line with applicable Coastal Act policies is provided on Table 5.11-2.

Table 5.11-1
2010 Long Range Development Plan
Policy Consistency Analysis

POLICY	ANALYSIS
Land Use	
LU-01 - A maximum of 3.6 million gross square feet (GSF) of additional academic and support uses may be developed on the UCSB campus where designated on Figure D.3, Potential Development Areas, and provided that it is consistent with all other policies and provisions of the LRDP.	**Consistent.** The Project does not propose any academic or support buildings that would contribute to the maximum building area allowed on the campus.
LU-05 - Development shall be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the site so that grading is kept to a minimum. Campus development shall protect, and where feasible restore, natural hydrologic features such as natural stream corridors, groundwater recharge areas, floodplains, vernal pools, and wetlands.	**Consistent.** The proposed Project would return the project site's existing topographic contours to natural conditions that existed before the oil storage facility was constructed; preserve and enhance existing wetland areas as feasible; create new wetlands; remove invasive species and reduce the invasive weed seed bank; promote growth of southern tarplant; and establish a dominant cover of annual and perennial native vegetation using salvaged native plants and locally collected seed, supplemented by native plantings. Restoration of the site has been designed around the need to preserve existing wetlands based on natural site features, and creation and enhancement of additional wetland features as mitigation for necessary impacts. The proposed plant palette includes a wide variety of species to increase biodiversity, match restored site contours, and provide flexibility and adaptive management of the restoration effort during the vegetation establishment period. Success criteria have been established, and monitoring methods and schedules are specified
Environmentally Sensitive Habitat	
ESH-06 – Operational noise levels shall not exceed state standards. The following operational noise sources are not subject to the maximum sound levels: **(a)** Noise of safety signals, warning devices and emergency pressure relief valves; and **(b)** Noise from moving sources such as tractors, automobiles, trucks, airplanes, etc. For all special events where the proposed event or activity is expected to generate significant noise in close proximity to sensitive receptor locations, the campus shall impose limitations on the hours of the event or activity.	**Consistent.** Construction equipment use at the project site would be a short-term condition. After the completion of proposed demolition, remediation, and restoration activities, the restored open space area would not be a substantial source of operation noise.
ESH-11 – The use of any noxious and/or invasive plant species listed as problematic, a 'noxious weed' and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, the	**Consistent.** The proposed restoration of the project site includes the use of native plant species to create a variety of aquatic, wetland and upland habitats.

Table 5.11-1
2010 Long Range Development Plan
Policy Consistency Analysis

POLICY	ANALYSIS
State of California or the U.S. Federal Government shall be prohibited in all campus landscaping.	
Policy ESH-14 – Topsoil that is excavated, stored, or moved as part of an approved development shall be managed to preserve the viability of the mycorrhizae by being stockpiled no higher than 3 feet to protect the viability of the mycorrhizae. To the extent feasible, topsoil should be reused on site or for restoration.	**Consistent.** In the instances that the soil is found to be suitable for use on the project site it would be stockpiled for use during restoration efforts as required by this policy.
ESH-16 – Night lighting shall be prohibited in environmentally sensitive habitat areas (ESHA) buffer and wetland buffer areas, except as required for public safety where an approved Notice of Impending Development specifically authorizes development within buffer areas pursuant to Policy ESH-22. In such cases the lighting shall be the minimum necessary to ensure public safety and shall be designed and implemented consistent with the lighting requirements of Policy ESH-15. Where lighting in a buffer area is proposed pursuant to this policy, the University shall submit a plan to screen nearby sensitive habitat from the effects of light pollution through landscaping with appropriate native plants or other measures.	**Consistent.** No permanent night lighting is proposed for the project site.
ESH-17 – Environmentally sensitive habitat areas (ESHA) on campus shall be protected and, where feasible, enhanced and restored. Only uses dependent on such resources shall be allowed within such areas. Where ESHA has been degraded through habitat fragmentation, colonization by invasive species, or other damage, such areas shall be restored.	**Consistent.** The objective of the Project is to restore the site and remove the idled oil and gas facilities.
ESH-18 – Natural Open Space Areas and Environmentally Sensitive Habitat areas on campus shall be restored with native plant species of local genetic stock, appropriate to habitat type, such as riparian, wetland, and coastal sage scrub plant community.	**Consistent.** The proposed restoration of the project site includes the use of native plant species to create similar habitat as present in the surrounding area.
ESH-27 – Raptor habitat, including nesting trees, roosting trees, perching locations, and foraging habitat, shall be protected and preserved.	**Consistent.** The 98 eucalyptus trees along the northern and eastern perimeters of the project site would be removed. In anticipation of removing the eucalyptus windrow, 528 coast live oak trees have been planted on Coal Oil Point Reserve. Approximately 407 of those trees have survived. While the COPR oak trees do not yet support raptor nesting, evidence from local breeding surveys

Table 5.11-1
2010 Long Range Development Plan
Policy Consistency Analysis

POLICY	ANALYSIS
	indicate nesting has occurred in many trees in the vicinity. White tailed kites have been observed nesting in larger oaks within COPR between 2010 and 2021. Seventy oak trees and approximately 125 fruit bearing trees are proposed to be planted where the windrows are removed. In addition, the proposed restoration of the project site will enhance habitat and foraging area resources available to raptors.
ESH-28 – **A.** The routine trimming and/or removal of trees on campus necessary to maintain campus landscaping or to address potential public safety concerns shall be exempt from the requirement to obtain a Notice of Impending Development (NOID), unless otherwise required pursuant to subparagraph B, below, and provided that the trimming and/or removal activities are carried out consistent with all provisions and protocols of the certified Campus Tree Trimming and Removal Program in Appendix 2, except that the following shall require a NOID: **1.** Trimming and/or removal of trees located within ESHA or on lands designated Open Space as covered in Policy ESH-29, **2.** The removal of any tree associated with new development, re-development, or renovation shall be evaluated separately through the NOID process as detailed in subparagraph C, below; **3.** The removal of tree windrows, and **4.** Trimming and/or removal of egret, heron, or cormorant roosting trees proximate to the Lagoon. **B.** All tree trimming and tree removal activities, including trimming or removal that is exempt from the requirement to obtain a Notice of Impending Development, shall be prohibited during the breeding and nesting season (February 15 to September 1) unless the University, in consultation with a qualified arborist, determines that: **1.** Immediate tree trimming or tree removal action by the University is required to protect life and property of the University from imminent danger, authorization is required where such activity would occur in ESHA or Open Space through an emergency permit, **2.** Trimming or removal of trees located outside of ESHA or Open Space areas during June 15 to September 1, provided where a qualified biologist has found that there are no active raptor nests or colonial	**Consistent with Proposed Mitigation.** This policy requires trees that provide raptor habitat to be replaced at 3:1 ratio. Ornamental, non-native trees are required to be replaced at 1:1 ratio. The eucalyptus windrow does not currently support raptor habitat and are non-native trees and a 1:1 replacement would be required. Nonetheless, since the eucalyptus have supported raptor nesting and are within an Open Space land use designation, a 3:1 ratio can be applied. The 407 surviving oak trees previously planted on the COPR in anticipation of the EMT restoration project more than satisfies the required replacement ratios. Removal of the eucalyptus windrow and other trees to implement the proposed restoration project would require the approval of a Notice of Impending Development and a Coastal Development Permit by the California Coastal Commission as required by subsection A.1 of this policy. With the previous planting of coast live oak trees on Coal Oil Point Reserve in anticipation of the proposed Project, the Project would not result in a net loss of nesting trees on the UCSB campus. Proposed mitigation measure BIO-9a requires that trees on the EMT project site be removed during the non-nesting season, or that a qualified biologist determine there are no active nests in the trees prior to removal. Proposed mitigation measure BIO-7a requires that the eucalyptus trees be surveyed for monarch butterflies prior to removal.

Table 5.11-1
2010 Long Range Development Plan
Policy Consistency Analysis

POLICY	ANALYSIS
birds roosts within 500 feet of the trees to be trimmed or removed, or **3.** Is part of a development or redevelopment approved pursuant to a Notice of Impending Development. **C.** To preserve roosting habitat for bird species and monarch butterflies, tree(s) associated with new development, re-development, or renovation that are either native or have the potential to provide habitat for raptors or other sensitive species shall be preserved and protected to the greatest extent feasible. Where native, or otherwise biologically significant, trees are retained, new development shall be sited a minimum of five feet from the outer edge of that tree's canopy drip-line. The removal of such trees shall be evaluated pursuant to the Notice of Impending Development for the new development. Prior to the removal of any native and/or sensitive tree for development purposes, the University shall conduct biological studies to show whether the tree(s) provide nesting, roosting, or foraging habitat for raptors and sensitive bird species, aggregation or significant foraging sites for monarch butterflies, or habitat for other sensitive biological resources. The Commission may condition the subject Notice of Impending Development to secure the seasonal timing restrictions and mitigation requirements otherwise set forth in the Campus Tree Trimming and Removal Program in Appendix 2.	
ESH-29 – Trees located within ESHA or designated Open Space shall not be trimmed or removed unless determined by a certified arborist to pose a substantial hazard to life or property and authorized pursuant to an emergency permit, or where the proposed removal is part of a Commission-approved habitat restoration plan, and shall require a Commission-approved Notice of Impending Development. All tree trimming and removal activities shall be consistent with the seasonal timing restrictions and mitigation requirements set forth in the Campus Tree Trimming and Removal Program in Appendix 2. The following Open Space areas shall be subject to the requirements for routine campus tree trimming and removal practices and shall not be considered as "Open Space" for the purposes of this policy: Commencement Green, UCEN lawn, and Pearl Chase Garden.	**Consistent.** The removal of trees from the project site would be conducted as part of a Commission-approved habitat restoration plan, as approved by a Notice of Impending Development. As described in the evaluation of Policy ESH-29, the removal of the trees would be consistent with the requirements of the Campus Tree Trimming and Removal Program.
ESH-46: The Ellwood Marine Terminal (EMT) Facilities shall be removed and the site shall be	**Consistent.** The proposed Project would remove 98 on-site eucalyptus trees from a remnant windrow

Table 5.11-1
2010 Long Range Development Plan
Policy Consistency Analysis

POLICY	ANALYSIS
restored to maximize habitat values. The EMT site shall be evaluated for soil and groundwater contamination, and a remediation plan shall be prepared and submitted to campus Environmental Health and Safety that complies with all federal and state regulations to clean and/or remove the contaminated soil or groundwater. A Notice of Impending Development shall be required for all development on the EMT site, including any necessary soil or groundwater remediation and habitat restoration activities. The white-tailed kite habitat, including white-tailed kite nesting trees, shall be preserved and enhanced. A portion of the southern extent of the eucalyptus trees east of the tanks may be removed where a phased restoration is implemented, pursuant to a Restoration Plan, to ensure that there is no interim loss of available habitat, serving the same habitat function, when the existing tree masses reach senescence. Locally native tree species, such as coast live oak, or tree species that are native to other coastal California areas, such as Monterey Cypress, that offer suitable nesting habitat upon maturation shall be planted in and around the existing tree masses with the intended purpose of reaching maturity as the older trees are lost. Biological surveys shall demonstrate that the replacement trees have been successfully used for nesting by raptors prior to removing the currently existing southern portion of eucalyptus trees at the EMT site.	planted in 1929. This policy prohibits the removal of the eucalyptus trees unless phased restoration is implemented ensuring no loss of available raptor nesting habitat. Further, biological surveys demonstrating that replacement trees (habitat) have been successfully used for nesting by raptors are required prior to removing the trees. Five hundred and twenty-eight (528) oak trees (coast live oak) were planted at Coal Oil Point Reserve (COPR) between 2014 and 2017. A large majority of the oak trees were planted east of, and adjacent to the EMT eucalyptus windrow. Monitoring results from 2017 indicate that 407 of the planted trees are alive and thriving. While the COPR oak trees do not yet support raptor nesting, evidence from local breeding surveys indicate nesting has occurred in many trees in the vicinity. White tailed kites have been observed nesting in larger oaks within COPR between 2010 and 2021. The eucalyptus windrow has supported only a very few raptor nests and no white tailed kite nests since 1990. One red tailed hawk was observed nesting in the eucalyptus in 2012 and a red shouldered hawk was observed nesting in 2020. There have been no Coopers hawk nests. As part of site restoration efforts 70 oak trees and approximately 125 fruit bearing trees would be planted along the northern and eastern boundaries of the project site area to replace the removed eucalyptus windrows. In addition, since the writing of LRDP Policy ESH-46, the North Campus Open Space (NCOS) Restoration project has been implemented and 240 trees were planted as part of that restoration project. The NCOS restoration project supports many breeding raptors, burrowing owls, and birds of all species. Further, 40 oak trees (coast live oaks) were planted adjacent to, and north of the EMT site in 2021 as mitigation for the University's Tennis Court Relocation project on the Main Campus.
Open Space	
Policy OS-10: Habitat of the western snowy plover, including resting, foraging, and nesting habitat, shall	**Consistent with Proposed Mitigation.** Removal of the on-shore portion of the existing oil loading line

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be preserved and protected from disturbance. Access to trails near plover habitat may be managed to protect plover populations during nesting season.	would have the potential to result in short-term impacts to snowy plover. Mitigation measure BIO-8a requires that removal work be conducted during the non-nesting season; that monitoring of line demolition activities be monitored, and that disturbed potential nesting areas be restored.
Scenic and Visual Resources	
SCEN-07 - For trees with significant scenic value, the first priority shall be to avoid tree removal where feasible. If tree removal cannot be avoided, the second priority shall be relocation of the tree. If the scenic tree cannot feasibly be retained in place, the tree removal shall be conducted and mitigated consistent with the Tree Trimming and Removal Program in Appendix 2. Where a scenic tree is located within ESHA or Open Space the tree trimming and removal shall be subject to Policy ESH-29.	**Consistent.** In accordance with this policy and in anticipation of removing the eucalyptus windrow at the project site, between 2014 and 2017 528 coast live oak trees were planted on Coal Oil Point Reserve. The planting of replacement trees on and adjacent to the project site is consistent with the requirements or this policy because the 2010 LRDP encourages the removal of non-native eucalyptus trees from the campus, and due the size and age of the existing eucalyptus trees relocating them would not be feasible.
Archaeology	
ARC-01 - New development that requires ground disturbance shall be evaluated for its potential to impact archaeological resources. Site research, records reviews and archaeological surveys shall be undertaken by a Registered Professional. This documentation shall be submitted with the Notice of Impending Development.	**Consistent** A literature search, site survey and extended phase 1 investigation of a portion of the project site that was not previously disturbed by grading activities were conducted as part of the evaluation of the Project's potential impacts to archaeological resources.
ARC-02 - The Department of Anthropology and Native American tribal groups approved by the Native American Heritage Commission for the area shall be consulted when development may adversely impact archeological resources.	**Consistent.** The Native American Heritage Commission was consulted in conjunction with the preparation of archaeological survey reports prepared for the Project.
ARC-03 - A mitigation plan shall be prepared by a Registered Professional Archaeologist when development may adversely impact archaeological resources. The mitigation plan shall be prepared in consultation with Native American tribal groups approved by the Native American Heritage Commission for the area, and the State Historic Preservation Officer, as applicable. Mitigation shall be designed in accordance with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission and shall, as the first priority, preserve the resources in place. Where in-situ preservation is not feasible, partial or total recovery of archaeological resources shall be undertaken.	**Consistent with Proposed Mitigation**. The archeological surveys prepared for the Project determined that there is a low potential for intact cultural resources to be present at the project site. However, due to the proximity of archaeological site mitigation measures CUL-1a through 1f are proposed, and those measures would reduce potential Project-related impacts to a less than significant level in the unlikely event that previously undetected resources are encountered during project construction. The proposed mitigation measures allow in-situ preservation of archaeological resources discovered during the implementation of the Project.

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ARC-04 - Archaeological monitors shall be on-site during all earth moving activities and/or other ground disturbances that have the potential to uncover or otherwise disturb archaeological resources. A Registered Professional Archaeological consultant and a Native American representative shall both be present.	**Consistent with Proposed Mitigation.** As required by proposed mitigation measure CUL-1b, an archaeologist and Chumash provided monitor shall be retained to monitor initial site preparation activities conducted on the project site. With the implementation of this mitigation measure, the Project would be consistent with the requirements of this policy.
ARC-05 - If archaeological or paleontological resources are discovered in the course of construction, all activity which could damage or destroy these resources shall be immediately halted. A Registered Professional Archaeologist, or paleontologist as applicable, shall examine the site and provide an evaluation of the nature and significance of the resources. Mitigation measures shall be developed and implemented to address the impacts of the development on the resources. The Office of Campus Planning and Design shall determine whether the development or mitigation measures require a new Notice of Impending Development and shall notify Coastal Commission staff that archaeological or paleontological resources were discovered during construction. Activities that may adversely impact these resources shall not resume without written authorization from the University Office of Planning & Design that construction may proceed.	**Consistent with Proposed Mitigation.** As required by proposed mitigation measure CUL-1d, all earth disturbing work in the vicinity of cultural resources detected during project construction must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative would be on the project site to monitor any mitigation and/or replacement of discovered materials. With the implementation of this mitigation measure, the EMT Demolition and Restoration Project would be consistent with the requirements of this policy.
ARC-06 - Vehicle use, unauthorized collecting of artifacts, or other activities that have the potential to destroy or disturb archaeological resources shall be prohibited.	**Consistent.** The proposed project would not substantially increase the potential for public access to the project site or the archaeological sites located on and near the site.
ARC-07 - Work shall be halted immediately when suspected human bone is discovered, regardless of context, until the coroner and a qualified archaeologist can examine the remains. University staff shall notify Coastal Commission staff of the nature of the discovery and that all work has been halted on the site. Activities shall not resume without written authorization from the Office of Campus Planning and Design that construction may proceed. Where Native American remains are discovered, further activities may require a Notice of Impending Development.	**Consistent with Proposed Mitigation.** Proposed mitigation measure CUL-1e describes actions to be taken in the unlikely event that human remains are detected during project construction. With the implementation of this mitigation measure, the Project would be consistent with the requirements of this policy.
ARC-08 - New development shall be sited and designed to avoid adverse impacts to archaeological	**Consistent with Proposed Mitigation.** No Project-related grading would occur in or near the portion of

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and paleontological resources to the maximum extent feasible. If there is no feasible alternative that eliminates all impacts to these resources, then the alternative that would result in the fewest or least significant impacts to resources shall be selected. Impacts to archaeological or paleontological resources that cannot be avoided through siting and design alternatives shall be fully mitigated.	site CA-SBA-2341, which has the potential to contain intact archaeological resources. In addition, proposed mitigation measures CUL-1a through 1f have been proposed to reduce potential Project-related impacts to a less than significant level in the unlikely event that previously undetected resources are encountered during project construction.
Water	
WQ-01 - New development shall be sited, designed, and managed to prevent adverse impacts from stormwater or dry weather runoff to coastal waters and environmentally sensitive habitat areas. Sources of inflow to coastal wetlands shall be maintained so that the quality, volume and duration of flows do not diminish wetland hydrology.	**Consistent.** The Project would not result in new development that would have the potential to substantially change existing stormwater runoff characteristics. Therefore, water quality features sized to collect, treat and retain a specific amount of runoff are not required.
WQ-03 - Stormwater and dry weather runoff management shall be addressed early in site design planning and alternatives analyses, taking into account existing site characteristics that affect runoff, (such as topography, drainage, vegetation, soil conditions, natural hydrologic features, and infiltration conditions) in designing strategies that minimize post-development changes in the runoff flow regime, control pollutant sources, and, where necessary, remove pollutants. The University shall, within a reasonable amount of time, develop a comprehensive surface water quality monitoring program for all discharges from campus. Properties and/or discharges with the highest levels of water pollution will be evaluated and water quality problems addressed, beginning with discharges deemed unhealthful or unsafe for human contact. **WQ-04 -** Campus site development is to be accomplished, whenever feasible, in a manner that will maximize percolation and infiltration of precipitation into the ground. The University shall site, design, construct and manage development to maintain or enhance where appropriate, on-site infiltration. Where inadequate infiltration would increase site runoff, development shall be scaled to ensure that on-site detention capacity (such as storage ponds or vaults) is increased sufficiently to avoid increased offsite discharge volume or velocity to the maximum extent feasible. Increased surface runoff shall not be conveyed over bluffs, including through sheet flow, open channels, or outfalls.	**Consistent.** The Project would not result in development that would substantially change existing runoff and drainage conditions. The onshore portion of the Project would be required to implement erosion control measures required by LRDP water quality policies, including a project specific Construction Pollution Prevention Plan (CPPP) as described by LRDP Appendix 3. Consistent with the LRDP requirements, proposed grading activities would not occur during the rainy season (would occur between May and October), and a variety of erosion and sediment control measures would be implemented, including but not limited to: the use of silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, jute or coir fabric, sandbag dikes, and temporary hydroseeding with native or sterile non-native seed mix to reduce runoff velocity, enhance infiltration and transpiration, trap sediment and to stabilize soil.

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WQ-05 - The University shall site, design, construct and manage development to preserve or enhance vegetation that provides water quality benefits such as transpiration, vegetative interception, pollutant uptake, shading of waterways, and erosion control. Native vegetation shall be prioritized for use in water-quality treatment facilities such as bioswales and vegetated filter strips. Removal of existing vegetation on campus shall be minimized and limited to a pre-approved area required for construction operations. The construction area shall be fenced to define project boundaries. When vegetation must be removed, the method shall be one that will minimize the erosive effects from the removal. Temporary mulching or other suitable interim stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.	**Consistent.** The EMT Demolition and Restoration Project would restore and enhance native habitat functions at the site, and would not substantially change existing stormwater runoff and drainage characteristics.
WQ-09 - Minimize water quality impacts from construction by implementing best management practices, in compliance with Appendix 3, Water Quality Protection Program, including: **A**. Construction shall be planned and managed to minimize impacts by such measures as limiting the project footprint, phasing grading activities to avoid rainy-season soil disturbance, implementing soil stabilization and pollution prevention measures, and preventing soil compaction unless required for structural support; **B**. Whenever practical, land on the North and West Campus where there is a risk of erosion that may affect ESHAs, plan the project in increments of workable size which can be completed during a single construction season; **C**. Erosion and sediment control measures are to be coordinated with the sequence of grading. Sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing and grading operations begin for campus development; and **D**. Fill areas shall have suitable protection against erosion and shall not encroach on Devereux Slough, Storke Campus Wetlands, Campus Lagoon or any other natural watercourses or constructed channels on campus.	**Consistent.** Proposed grading activities would not occur during the rainy season (grading would occur between May and October). A variety of erosion and sediment control measures would be used on the project site, including but not limited to: the use of silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, jute or coir fabric, sandbag dikes, and temporary hydroseeding with native or sterile non-native seed mix to reduce runoff velocity.

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WQ-10 - Grading operations that have the potential to deliver sediment to wetlands, environmentally sensitive habitat areas, or coastal waters shall be scheduled during the dry months of the year (May through October). The construction timeline may be extended into the rainy season for a specific, limited length of time, based on an inspection of the site, and a determination that conditions at the project site are suitable for. Continuation of work may be allowed if appropriate erosion and sedimentation control measures are in place and will be maintained during the activity. If grading occurs during the rainy season (November through April), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation in compliance with Appendix 3, Water Quality Protection Program.	**Consistent.** The Project would be required to implement erosion control measures required by LRDP water quality policies and as identified in a project-specific Construction Pollution Prevention Plan (CPPP) as described by LRDP Appendix 3. Proposed grading activities would not occur during the rainy season (grading would occur between May and October).
WQ-11 - Excavated materials shall not be deposited or stored where the material can be washed away by storm water runoff. Topsoil removed from the surface in preparation for grading and construction is to be stored on or near the site, where the stockpile area(s) will not impact natural vegetation, and protected from erosion while grading operations are underway, provided that the topsoil is also managed consistent with Policy ESH-14. Appropriate measures shall be taken to protect the preserved topsoil from erosion and runoff through such measures as tarping, jute netting, silt fencing, and sandbagging soil. After completion of such grading, topsoil is to be restored to exposed cut and fill embankments of building pads so as to provide a suitable base for seeding and planting. These requirements shall be incorporated into applicable water quality protection plans (Construction Pollution Prevention Plan, Post-Development Runoff Plan, and/or Water Quality and Hydrology Plan as applicable) for processing during the NOID process as described in Appendix 3, Water Quality Protection Program.	**Consistent.** Excavated soil would not be placed in or adjacent to open water channels and temporary soil stockpiles would be located on portions of the project site that do not contain sensitive plants or habitat. Temporary seeding of stockpiled soils may be performed to prevent erosion during the storage period. If temporary planting is not used, other best management practices such as the use of silt fences or other sediment control methods identified in a project-specific CPPP would be implemented and maintained. Stored soils would be stockpiled as briefly as possible to prevent anaerobic conditions from developing.
Climate Change and Shoreline Protection	
SH-02 - New development shall be sited to avoid potential flooding, inundation, and erosion hazards created or exacerbated by long-range sea level rise. New development that is potentially subject to the	**Consistent.** The EMT Demolition and Restoration project site is approximately 50 feet above sea level, therefore, a climate change induced rise in sea level of up to 66 inches by the year 2100 would not result

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effects of sea level rise shall require a current (prepared within the past 2 years) coastal hazards assessment as described in Policy SH-04. Based on the coastal hazards assessment, new development and redevelopment shall be sited: to avoid any hazards anticipated during the life of the structure and to avoid the need for bluff retaining or shoreline protection devices. Hazard avoidance efforts shall not result in impacts to coastal resources or encroachment into coastal habitats and shall not undermine broader ecosystem sustainability, for example, siting and design of new development must not only avoid sea-level rise hazards, but also ensure that the development does not have unintended adverse consequences that impact sensitive habitats or species in the area. The assessment must also consider the potential need for larger setbacks near ESHA and natural open spaces to allow for habitat sustainability and migration.	in adverse direct effects to the project site. The project site is not located within a 100-year floodplain, and the nearest designated floodplain areas are the Devereux Slough, approximately 1,300 feet east of the project site; and along Devereux Creek, approximately 1,200 feet north of the project site. Due to the elevation of the project site, an increase in the severity of flood events would not result in significant flooding-related impacts and no bluff retaining or shoreline protection devices would be required.
Hazardous Spills	
HAZ-5 - If contaminated soil and/or contaminated groundwater are encountered during excavation and/or grading activities, except where such activities are implementing a Commission-approved remediation plan, the following steps shall be taken: **(a)** The construction contractor(s) shall stop work and immediately inform Environmental Health and Safety (EH&S); **(b)** An on-site assessment shall be conducted to determine if the discovered materials pose a significant risk to the public or construction workers; **(c)** If the materials are determined to pose such a risk, a remediation plan shall be prepared and submitted to EH&S to comply with all federal and state regulations necessary to clean and/or remove the contaminated soil and/or groundwater; **(d)** Soil remediation methods could include, but are not necessarily limited to, excavation and on-site treatment, excavation and off-site treatment and/or disposal, and/or treatment without excavation; **(e)** Remediation alternatives for contaminated groundwater could include, but are not necessarily limited to, on-site treatment, extraction and off-site treatment, and/or disposal; and **(f)** The construction schedule shall be modified or delayed to ensure that construction will not obstruct remediation activities and will not expose the public or construction workers to significant risks associated with hazardous conditions. The Ellwood Marine	**Consistent with Proposed Mitigation.** An objective of the proposed Project is to remediate contamination on the project site that resulted from past operation of the EMT. Proposed mitigation measure HAZ-1a requires additional site assessment and the preparation and implementation of a remediation plan approved by Commission and the RWQCB.

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Terminal Facility has a known contamination risk and shall be subject to Policy ESH-46.	

Table 5.11-2
California Coastal Act
Policy Consistency Analysis

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§ 30211 - Development Not to Interfere with Access. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.	**Consistent.** Throughout the beach and offshore loading pipeline removal process, appropriate warning signs, barriers, monitors, etc., would be provided in beach areas to temporarily restrict public access through the work area. The Project would not interfere with public access to coastal resources after the completion of construction operations.
§ 30230 - Marine Resources and Special Protection. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters, and will maintain healthy populations of all species of marine organisms, adequate for long term commercial, recreational, scientific and educational purposes.	**Consistent with Proposed Mitigation.** The temporary physical disturbance resulting from the excavation and removal of the offshore loading pipeline, and the presence of work boats along the pipeline route, would likely cause both listed and non-listed species of fish, foraging seabirds, and marine mammals to avoid the immediate work area. These effects would be temporary, with construction disturbance at the project site lasting approximately 38 days. During this period, proposed mitigation measures would substantially reduce the potential for the beach and offshore portions of the Project to result in significant impacts to the biological productivity of coastal waters. These mitigation measures include requirements to conduct pre- and post-project surveys of marine resources (measures BIO-11a and 11b), and prepare a post-project technical report to document any project-related effects and to conduct related restoration efforts (measure BIO-11c). The affected area would be limited to the immediate excavation area and would not substantially limit the available habitat for fish, seabirds and marine mammals in the Project vicinity. The proposed Project would not result in potential long-term impacts to marine resources.
§ 30232 - Oil and Hazardous Substance Spills. Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or	**Consistent with Proposed Mitigation.** The short-term use of equipment on the beach and offshore vessels to remove the oil loading line have the potential to result in leaks or spills that could impact

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California Coastal Act
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transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.	marine resources. The potential for this impact would be minimized with the implementation of proposed mitigation measure BIO-12b, which requires the preparation of an oil spill contingency plan.
§ 30244 - Archaeological or Paleontological Resources. Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.	**Consistent with Proposed Mitigation.** No known historical resources (i.e., ship wrecks) are located in the vicinity of the offshore loading line. Therefore, it is unlikely that removal of the line would affect a historical artifact. In addition, the absence of submerged cultural resources would be confirmed during the pre-construction survey of the loading line route required by proposed mitigation measure BIO-11a. If necessary, the proposed anchoring plan required by mitigation measure BIO-12a would be adjusted to avoid impacts to any recently discovered resources. Therefore, impacts to previously undiscovered offshore cultural resources are not anticipated.
§ 30251 - Scenic and Visual Qualities. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to, and along, the ocean and scenic coastal areas to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.	**Consistent.** Removal of the beach and offshore loading line would require the short-term use of construction equipment on the beach and marine vessels. The use of this equipment would have the potential to result in adverse impacts to scenic views of the beach and ocean. However, disturbed areas would be restored, and due to the short duration of the loading line removal work (approximately 38 days) the removal of the loading line would not result in a significant aesthetic impact. The removal of the loading line would not result in potential long-term impacts to scenic resources.
§ 30253 –Minimization of Adverse Impacts. New development shall: 1) Minimize risks to life and property in areas of high geologic, flood, or fire hazard. 2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site and surrounding area in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. 3) Be consistent with the requirements imposed by the air pollution control district or State Air Resources Control Board as to each particular development. 4) Minimize energy consumption and vehicles miles traveled. 5) Where appropriate, protect	**Consistent.** The proposed removal of the oil loading line would not result in new development that may be adversely affected by geologic, flood or fire hazards; require shoreline protection devices; result in air quality impacts, or require long-term energy use. Proposed short-term construction operations to remove the pipeline would not result in significant emissions of air pollutants; require the extensive use of energy; or result in noise or other effects that would result in significant impacts to nearby residential areas. In addition, areas that would be disturbed by removal of the pipeline would be restored either by natural processes or through the implementation of proposed restoration plans.

Table 5.11-2
California Coastal Act
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special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.	

5.11.3 Mitigation Measures

With the implementation of mitigation measures identified by this IS/MND and identified below, the EMT Demolition and Restoration Project would be consistent with applicable policies of the 2010 LRDP. No additional mitigation measures are required.

- Mitigation Measure BIO-7a: Conduct on-site pre-construction surveys for monarch butterflies.
- Mitigation Measure BIO-8a: Conduct snowy plover pre-construction surveys and monitoring.
- Mitigation Measures BIO-9a, b and c: Conduct pre-construction bird nest surveys.
- Mitigation Measures CUL-1a through 1f: Require archaeological resource monitoring during initial site preparation activities and implement specified actions in the unlikely event that potentially significant archaeological resources are detected during project construction.
- Mitigation Measure HAZ-1a: Site assessment and remediation plan preparation and implementation.

With the implementation of mitigation measures identified by this IS/MND and identified below, the EMT Demolition and Restoration Project would be consistent with applicable policies of the California Coastal Act. No additional mitigation measures are required.

- Mitigation Measures BIO-11a and 11b: Conduct pre- and post-project surveys of marine resources.
- Mitigation Measure BIO-11c: Prepare a post-project technical report to document any project-related effects and to conduct related restoration efforts.
- Mitigation Measure 12a: Prepare an anchoring plan.
- Mitigation Measure 12b: Prepare an oil spill contingency plan.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.12 MINERAL RESOURCES - Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐	✓

5.12.1 Setting

There are no mineral resources or existing mineral resource recovery operations located on or near the UCSB campus. Oil production-related operations at the EMT were suspended in 2012.

5.12.2 Checklist Responses

a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

See response provided below under item "b."

b. *Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

The Project would not limit the availability of mineral resources to the Project area or region, or interfere with mineral resource recovery operations. Therefore, the Project would have **no impact** on mineral resources.

5.12.3 Cumulative Impacts

The proposed Project would have no impact to mineral resources and would have **no impact** related to potential cumulative effects.

5.12.4 Mitigation Measures

The Project would have no impact to mineral resources. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.13 NOISE - Would the project result in:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	✓	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	✓	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	✓

5.13.1 Setting

The project site is located in the western portion of the UCSB North Campus, and is bounded by the UCSB South Parcel to the north, the Coal Oil Point Reserve (COPR) to the south, and by undeveloped property in the City of Goleta's jurisdiction to the west. The adjacent Sperling Reserve on the Ellwood Mesa is designated as open space by the City of Goleta. The closest sensitive noise receptor to the project site is the Ocean Walk housing project, which is approximately 1,700 feet to the north.

5.12.2 Noise Thresholds

Based on thresholds used by the 2010 LRDP EIR, a project would result in a significant noise impact if it would:

a. Generate outdoor noise levels in excess of 65 dBA CNEL that could affect existing sensitive noise receptors.

b. Expose noise sensitive uses to 65 dBA CNEL or greater in outdoor living areas or if indoor noise levels cannot be reduced to at least 45 dBA CNEL.

c. Increase ambient noise levels at noise sensitive receptors by 3 dBA or more when ambient noise levels are at or already exceed the 65 dBA outdoor CNEL.

d. Place active construction sites within 1,000 feet of noise-sensitive uses.

Offshore operations that would be conducted to remove the EMT oil loading line would have the potential to result in a significant noise impact if Project-related vessel operations would result in the harassment of marine mammals.

5.13.3 Checklist Responses

a. *Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Short-Term Noise Sources

Onshore Operations**.** The onshore portion of the Proposed Project consists of short-term (90-120 days) demolition and site restoration activities that would occur during daytime hours. The predominant noise-generating activities that would occur at the project site include the use of heavy machinery for demolition and grading, and vehicle/equipment traffic to and from the project site.

Sensitive noise receptors nearest the project site are approximately 1,700 feet to the north of the site. At that distance, project-related construction-related noise of 90 dBA, which could result from the simultaneous operation of multiple pieces of construction equipment, would result in noise levels at the nearest sensitive receptor of approximately 59 dBA. That noise level would be below the 65 dBA threshold of significance for outdoor noise levels. Assuming approximately 20 decibels of sound attenuation provided by a residential building, resulting interior noise levels would be approximately 39 dBA, which is below the 45 dba threshold of significance for indoor noise.

It is estimated that approximately 10-12 project-related persons (construction workers and monitors) would be on the project site. The limited amount of traffic generated by project personnel, and truck traffic resulting from moving construction equipment onto the site and

hauling demolition material off of the site, would not have the potential to increase existing ambient noise levels adjacent to roadways used by project-generated traffic more than 3dBA. To increase existing traffic noise by 3 dBA or more, existing traffic levels on roadways near the project site would have to be doubled.

Therefore, short-term Project-related onshore construction- and traffic-related noise would result in a **less than significant** noise impact.

Offshore Operations. Studies have suggested that sound pressure levels above 190 dB can cause temporary hearing impairment in cetaceans (whales, dolphins, and porpoises), and sound pressure levels above 180 dB can cause temporary hearing impairment in pinnipeds (seals and sea lions). The National Marine Fisheries Service also distinguishes between impulse sound, such as from impact pile driving; and continuous sounds, such as from vibratory pile driving. NMFS criteria for harassment of marine mammals from continuous sound are between 120 dB and 180 dB (CSLC, 2012). The proposed Project would not result in pile driving or other similar impact noise-producing operations.

Proposed operations to remove the offshore loading line would occur over a period of approximately 38 days, and would require the use of a crew boat, tug boat, and non-motorized barge. These types of vessels are common in the offshore environs of Santa Barbara Channel. Underwater noise from these vessels is generally caused by propeller/thruster cavitation and machinery noise with noise levels being heavily dependent on vessel speed. Empirical data suggest that underwater noise levels from tug boats is approximately 160 dB at a distance of 2 meters (approximately 6.5 feet) measured at a vessel speed of 11 knots with an empty barge (CSLC, 2012). For this analysis, it is assumed that the proposed crew boat would result in similar underwater noise levels. The simultaneous operation of the tug boat and crew boat in proximity to the each other would have the potential to result in peak underwater noise levels of approximately 163 dB.

Underwater noise levels rapidly attenuate with distance and decrease at a rate of approximately 6 dB per doubling of distance. Noise levels from the simultaneous operation of a tug and crew boat would attenuate to below 120 dB at approximately 200 meters (approximately 640 feet) from the location of the boat operations. Background sound levels in the nearshore environment are often at or near 120 dB with background sound generated from both anthropogenic sources such as vessels and natural sources including wind waves at the surface (CSLC, 2012).

Potential boat operation peak noise conditions (163 dB) would not exceed noise levels that may result in temporary hearing impacts to cetaceans or pinnipeds (i.e, exceed 180 dB). Boat operations would occasionally exceed the lower noise range that has the potential to result in marine mammal harassment (120 dB), however, such impacts would only occur occasionally over a 38 day period, and would only affect a limited area adjacent to the Project boats. As a result, potential short-term boat operation noise would have a **less than significant** noise impact on marine mammals.

Removal of the offshore portion of the oil loading line would require the use of equipment such as heavy construction equipment (i.e., a tracked bulldozer on the beach to pull pipeline segments) and marine vessels. A bulldozer on the beach would be located a minimum of

approximately 3,200 feet from the nearest sensitive noise receptors (UCSB Ocean Walk housing), and marine vessels would likely be a minimum of approximately 4,500 feet from the nearest receptors. Assuming that equipment on the beach, and the crew boat and tug boat, each have an operating noise level of 90 dBA measured at 50 feet from the source, the simultaneous operation of all equipment would result in project-related construction noise at the nearest sensitive noise receptor or approximately 54 dBA. Therefore, construction noise resulting from the removal of the loading line would not result in construction noise levels above the 65 dBA significance threshold at the nearest receptor and short-term noise impacts would be **less than significant.**

Long-Term Noise Sources

The proposed Project would restore the EMT site to condition similar to those that existed prior to the development of the existing oil and gas storage facilities. No new noise-generating development is proposed at the project site or in offshore areas Therefore, long-term noise impacts of the Project would be **less than significant**.

b. *Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?*

Site preparation activities (i.e., grading) and proposed demolition activities would not require equipment or construction techniques *(e.g.,* pile driving) that would result in the creation of excessive groundborne vibrations. Therefore, the short-term vibration impacts of the Project would be **less than significant**.

c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The proposed Project site would remain open space and no uses would be developed that would have the potential to expose people to excessive airport operation noise sources. Therefore, the Project would have **no impact** related to airport noise.

5.13.3 Cumulative Impacts

The proposed Project would not be a substantial long-term source of noise and would not generate a substantial amount of traffic. Therefore, long-term noise impacts would not be cumulatively considerable and potential cumulative noise impacts would be **less than significant**.

5.13.4 Mitigation Measures

The Project would result in less than significant noise impacts. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.14 POPULATION AND HOUSING –Would the project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☐	✓
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	✓

5.14.1 Setting

The Project site is primarily an open space area and there are no residences located on or adjacent to the site. Infrastructure required to serve the Project (i.e., power, water, wastewater and roads) is located on and in the vicinity of the project site.

5.14.2 Checklist Responses

a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The Project would not result in the development of homes or businesses that would directly or indirectly result in population growth in the Project region or on the UCSB campus. Therefore, the Project would not result in or encourage population growth in the Project region and would have **no impact** related to potential growth inducing effects.

b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The Project would not result in the displacement of any people and would have **no impact** related to the need for replacement housing.

5.14.3 Cumulative Impacts

The proposed Project would not result in substantial job or population growth or result in the loss of existing housing. Therefore, when combined with other cumulative development projects, including the removal of the off-shore portion of the former oil loading line, the proposed Project would not result in cumulatively considerable population or housing impacts and cumulative population and housing impacts would be **less than significant**.

5.14.4 Mitigation Measures

The Project would have no population or housing impacts. Therefore, no mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.15 PUBLIC SERVICES - Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire protection?	☐	☐	☐	☐	✓
Police protection?	☐	☐	☐	☐	✓
Schools?	☐	☐	☐	☐	✓
Parks?	☐	☐	☐	☐	✓
Other public facilities?	☐	☐	☐	☐	✓

5.15.1 Setting

Fire Protection. UCSB is located within the service area of the Santa Barbara County Fire Protection District, and fire prevention and suppression services are provided by the Santa Barbara County Fire Department. Fire Station No. 17 is located on-campus on Mesa Road, approximately three-quarters of a mile west of the project site, and Fire Station No. 11 is located off-campus on Storke Road, approximately 1.5 miles west of the project site.

The review and approval of campus development plans for compliance with fire protection-related requirements is the responsibility of the UCSB Fire Protection Division of the Environmental Health and Safety Department. An employee of the on-campus Fire Protection Division has been designated as a "Campus Fire Marshall" by the State Fire Marshall's Office. The review of proposed development plans, such as access and hydrant locations, is also coordinated with the County of Santa Barbara Fire Department.

Police Protection. The UCSB Police Department is responsible for the safety and security of the UCSB campus as well as properties owned, controlled or occupied by the University. The

Police Department is open 24 hours a day and is located in the Public Safety Building on the UCSB Main Campus. University Police officers, Santa Barbara County Sheriff's Deputies and California Highway Patrol officers work together to staff the Isla Vista Foot Patrol, which has recently relocated to a new facility in Isla Vista along the western edge of the Main Campus.

Schools. UCSB is located within the Goleta Union School District and the Santa Barbara High School District.

Parks. Numerous and varied recreation facilities for UCSB students, faculty and staff, and the public are provided on the Main Campus. Other park facilities are provided in the project region by the cities of Santa Barbara and Goleta, the County of Santa Barbara and the Isla Vista Recreation and Park District.

5.15.2 Checklist Responses

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

The Project result in the removal of non-operational oil and gas equipment, remediate existing soil contamination, and restore the site to open space and native habitat conditions. The Project would not result in the development of structures or uses that would result in an increased demand for public services. Therefore, the Project would have **no impact** on the public services.

5.15.3 Cumulative Impacts

The Project would have no impact on public services and would have **no impact** related to potential cumulative effects.

5.15.4 Mitigation Measures

The Project would not result in significant public service impacts. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.16 RECREATION - Would the project:					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	✓	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☐	✓

5.16.1 Setting

The EMT facility is currently idled and the site closed to the public. Pending completion of the proposed Project, the site would retain its "Open Space" land use designation and would become accessible to the public.

5.16.2 Checklist Responses

a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The Project site is located near established biking and hiking trails, and the EMT oil loading line crosses Ellwood Beach. Throughout the pipeline removal process, appropriate warning signs, barriers, etc., would be used to temporarily restrict public access through the work area. Excavated areas would be backfilled before work is concluded each day if outside of the perimeter fence, or additional perimeter fencing/exclusion zones would be installed to secure the area.

The Project would not permanently impact any existing trails, and would result in additional accessible open space through the removal of fencing and idle oil storage equipment. Venoco Road, a public accessway through the North Campus to Ellwood, provides access to the project site would be periodically closed during site demolition. A

traffic control plan would be in place for these periods. This would be a temporary impact. Removal of the loading line from the onshore and beach areas would result in temporary access restrictions for safety purposes, however, this would be a very short-term effect of the Project. The Project would not result in a population increase and would have no long-term adverse impacts on the quality or quantity of existing recreational opportunities, either in the project vicinity or County-wide. Therefore, the Project would result in **less than significant** impacts to recreation facilities.

b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed Project includes the removal of oil and gas facilities, remediation of soil contamination, grading of the site, and planting of native species. The Project would not result in cause population growth that would result in an increased demand for recreation facilities. The Project does not involve construction or expansion of any recreational facilities. Therefore, the Project would have **no impact** related to a need to expand or construct recreation facilities.

5.16.3 Cumulative Impacts

The Project would not result in or contribute to impacts to existing recreation facilities. Therefore, the Project's recreation impacts to existing facilities are not cumulatively considerable and cumulative impacts would be **less than significant**.

5.16.4 Mitigation Measures

The Project would have less than significant impacts to on- or off-campus recreation facilities. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.17 TRANSPORTATION Would the project:					
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	✓	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☐	✓	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✓	☐	☐
d) Result in inadequate emergency access?	☐	☐	☐	✓	☐

5.17.1 Setting

Regional access to the Project site is from U.S. 101, which is approximately one mile north of the site. From U.S. 101, access to the site is provided by travelling south on Storke Road; west then south on Sierra Madre Court, which is adjacent to the UCSB West Campus Apartments, then by traveling approximately 3,500 feet west on Venoco Road. Venoco Road is a limited access (i.e., gated) paved road. There are no active uses on the project site, therefore, the site does not generate a substantial amount of traffic or vehicle miles travelled.

5.17.2 Checklist Responses

a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The open space that would be restored by proposed Project would not be a substantial sources of vehicle trips and would not result in population growth that result in an increase in vehicle trips. Therefore, the Project would not result in long-term effects on existing transportation facilities, and would not result in population growth on the UCSB campus or off-campus areas that would increase demand for transit, bicycle or pedestrian facilities.

Short-term traffic resulting from activities such as the delivery and removal of construction equipment, and the removal of contaminated soils and demolition material may temporarily impede traffic along the project site access roads. This would be an adverse but **less than significant** impact on the existing roadway system.

b. *Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?*

Senate Bill 743 (Steinberg, 2013) required changes to the CEQA Guidelines regarding the analysis of transportation impacts. The California Office of Planning and Research proposed changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. The California Natural Resources Agency adopted the recommended changes to the CEQA Guidelines and they became effective on December 28, 2018. With the adopted changes, automobile delay as measured by "level of service" and other similar metrics, will generally no longer constitute a significant environmental effect under CEQA.

CEQA Guidelines Section 15064.3, subdivision (b) implements the adopted VMT analysis requirements and states:

(b) *Criteria for Analyzing Transportation Impacts.*

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

The majority of the traffic generated by the Project would be from short-term operations such as the delivery and removal of demolition and other construction equipment, removal of demolition material, remediation activities such as hauling contaminated soil, and restoration activities. Traffic generated by these types of activities would not be substantial and would occur intermittently over the Project's 90-120 day construction period. Traffic generated by construction workers would occur on a more regular basis, however, on-site personnel would generally be limited to approximately 10-12 persons. Project personnel associated with the removal of the offshore loading line would be work from the *King C* vessel, which would travel between the project site and the Santa Barbara harbor twice a day for crew changes. These crew changes would result in a limited number of construction worker trips over a 38 day period. Therefore, construction personnel would not be a substantial source of Project-related traffic. Proposed on-site restoration would include activities such as vegetation planting, watering, seasonal weed control, and other maintenance operations of a five-year period. These operations would also not be a substantial source of additional traffic.

The proposed Project would not expand existing UCSB academic programs, result in any additional students, faculty, or staff on the UCSB campus, or foster other population growth in the Project region. As a result, the Project would not generate a substantial amount of additional vehicle traffic. Therefore, as described by subsection (b)(3) (Qualitative Analysis) above, it is presumed that the Project would not result in a substantial increase in VMT and would result in a **less than significant** transportation impact.

A barge and workboat outfitted with a crane, would be positioned at the offshore end of the pipeline so a dive team can excavate and cut the loading pipeline and remove any above sea floor piping and the flange and valve from the end of the pipeline. The derrick barge would be held in place with a 4-point anchor mooring system. The anchors would be placed to allow the barge to be moved toward shore along the pipeline. Anchors would be moved toward shore as required to facilitate complete pipeline removal. Following completion of the loading pipeline decommissioning, the workboat would then position itself over each of the six anchors in turn for preparation of mooring anchor removal. Each anchor leg consists of a mooring buoy, a chain, and a 16,000-pound mooring. A dive survey would be conducted to remove all remaining mooring equipment and EMT related debris from the ocean floor. The use of the barge of workboat would be short-term (38 days) and would result in a **less than significant** impact to marine traffic.

c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Vehicle access to the project site from Storke Road would be from the Storke Road/Sierra Madre Court intersection, then along Sierra Madre Court road to Venoco Road. Sierra Madre Court is located adjacent to the West Campus Apartments. The movement of over-sized vehicles through the Storke Road/Sierra Madre Court intersection, and along the Sierra Madre Court roadway could have the potential to result in safety conflicts at the intersection and with residential traffic along Sierra Madre Court. This potential short-term safety impact could be **reduced to less than significant** through the use of flagmen or other appropriate traffic control/safety measures when over-sized vehicles enter or leave the project site.

d. *Result in inadequate emergency access?*

Short-term construction-related traffic, such as the movement of over-sized vehicles on and off the project site, would occur intermittently and for short periods of time. Therefore, project-related construction traffic would not result in inadequate emergency access. The Project would not result in new uses that would substantially increase traffic on Project area roadways after the completion of proposed demolition, remediation, and restoration activities. Therefore, the project would not substantially increase traffic on local roadways, and project-related traffic would not interfere with emergency access to the site. Potential project-related access impacts would be **less than significant**.

5.17.3 Cumulative Impacts

Short-term traffic generated by the Project would be minor and most short-term traffic would occur intermittently over a limited time period (90-120 days). As a result, Project-related traffic would not be substantial or cumulatively considerable, and would result in **less than significant** traffic-related impacts.

5.17.4 Mitigation

Impacts Reduced to a Less Than Significant Level With Proposed Mitigation

Potential short-term transportation safety impacts resulting from the use of over-sized vehicles near the UCSB West Campus Apartments can be reduced to a less than significant level with the implementation of the following mitigation measure.

IMPACT TRF-1 **The movement of over-sized vehicles through the Storke Road/Sierra Madre Court intersection, and along the Sierra Madre Court roadway has the potential to result in short-term safety conflicts at the intersection and with residential traffic along Sierra Madre Court.**

TRF-1a. Flagmen and/or other appropriate traffic control/safety measures shall be utilized at the Storke Road/Sierra Madre Court

intersection, and along the Sierra Madre Court roadway when over-sized vehicles enter or leave the project site.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.18 TRIBAL CULTURAL RESOURCES.					
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020(k), or	☐	☐	☐	✓	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	✓	☐	☐

5.18.1 Setting

Assembly Bill 52 (AB 52), known as the Native American Historic Resource Protection Act, requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with a proposed project's geographic area, if they have requested to be notified, in order to include California tribes in determining if a project may result in significant impacts to tribal cultural resources (TCR), which may be undocumented or known only to the tribe. AB 52 defines a TCR as a site, feature, place, or a cultural landscape that is geographically defined in terms of size and scope, sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources, or that the lead agency chooses at its discretion to treat as a TCR. When a lead agency chooses to treat a resource as a TCR, that determination shall be supported with substantial evidence, applying the criteria in the historical register and considering the significance of the resource to a California tribe. A project that may cause substantial adverse change in the significance of a TCR is one that may have a significant effect on the environment.

Consultation with California tribes may include, but is not limited to, discussion of the type of environmental review necessary, the significance of TCRs, the significance of the proposed project impacts on the TCRs, and alternatives and mitigation measures recommended by the tribe. Mitigation measures agreed upon must be included in the environmental document. Consultation is considered concluded when the parties agree to measures to avoid or reduce a significant impact on a TCR, or when a party concludes that mutual agreement cannot be reached. If no formal agreement on the appropriate mitigation has been established, mitigation measures that avoid or substantially lessen potential significant impacts should be implemented, if feasible.

UCSB has notified the Santa Ynez Band of Chumash Indians, Barbareño / Ventureño Band of Mission Indians, and the Coastal Band of the Chumash Nation regarding the proposed EMT Project. The following consultations have taken place.

- March 28, 2023 - Zoom meeting with Santa Ynez Band of Chumash Indians.
- April 4, 2023 - AB 52 Consultation request letters sent to the Santa Ynez Band of Chumash Indians, Barbareño Band of Mission Indians, and the Coastal Band of the Chumash Nation via email and certified mail.
- April 4, 2023 - The University received an email reply from the Santa Ynez Band of Indians indicating they would like consultation on the proposed project.
- April 6, 2023 - The University received an email reply from the Barbareño Band of Chumash Indians acknowledging the AB52 consultation request and indicated they would be in contact with any questions or comments.
- April 12, 2023 - The University received a formal letter from the Santa Ynez Band of Chumash Indians requesting consultation on all University projects.

- April 24, 2023 – The University communicated with the SYBCI via email the draft Cultural Resources mitigation measures seeking comments.

- April 25, 2023 – The University received a response from the SYBCI indicating comments would be forthcoming.

- May 11, 2023 – The University communicated with the SYBCI via email following up on the April 24, 2023 email requesting comments on the draft mitigation measures.

- May 11, 2023 – The University received a reply via email from the SYBCI indicating comments on the draft mitigation measures are forthcoming the next day.

- May 22, 2023 – The University met with the Tribal Chair of the Barbareño Band of Chumash Indians on zoom.

Through the AB 52 consultation process on a separate project, the Santa Ynez Band of Chumash Indians has requested of UCSB that during monitoring of earth moving activities, should construction activities result in the discovery of cultural resources, no further evaluation (i.e., Phase 2 archaeological testing to determine the significance of the find) be conducted. Instead, the discovered resources should remain at the project site. This treatment of discovered resources is a requirement of proposed mitigation measure CUL-1d of this IS/MND.

5.18.2 Checklist Responses

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020(k).

To determine the horizontal and vertical extent and integrity of the archaeological sites located on the EMT project site, extended Phase I testing and a Phase 2 archaeological subsurface evaluation within CA-SBA-1327 and CA-SBA-2341 were conducted between March 25, 2015 and April 3, 2015 (*Archaeological XP1 and Phase II Testing and Evaluation at Ellwood Marine Terminal Decommissioning Project, Santa Barbara County, California,* prepared by Garcia and Associates May 2015). The Phase 2 report states that once testing began, it was apparent that the level of previous ground disturbance was more extreme than anticipated. Results determined that the entire project site had been mechanically stripped, graded and filled at variable levels, indicating a severe mixing of modern debris, historic and prehistoric artifacts with no distinct concentrations, patterning or assemblage. The report states that due to the sites being adversely affected by past oil and gas development and activities, sites CA-SBA-

1327 and CA-SBA-2341 are not considered eligible as a historical resource or eligible for listing on the National Register of Historic Places (NRHP) and /or California Register of Historical Resources (CRHR). Therefore, the Project would result in **less than significant** impacts to sites eligible for listing.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The analysis of Project-related impacts to known archaeological resources presented in Section 5.5.2 (Cultural Resources) above concludes that the potential for significant impacts at the project site is low. However, the analysis also concludes that in the event that potentially significant cultural resources are encountered during on-site demolition, grading, or soil contamination remediation, such impacts can be reduced with the implementation of proposed mitigation measures.

Based on the analysis provided above and consultation with the Santa Ynez Band of Chumash Indians, the potential for the Project to result in significant impacts to Tribal Cultural Resources, including significant Native American artifacts and human remains, can be **reduced to less than significant** level with the implementation of mitigation measures CUL-1a through 1f. Proposed mitigation measures CUL-1d and 1e are related to the disposition of archaeological resources that may be discovered at the site during ground disturbing activities. Mitigation measure CUL-1d was developed in consultation with representatives of the Santa Ynez Band of Chumash Indians and requires that in the event cultural resources are discovered as a result of ground disturbing activities, no further evaluation of discovered resources occur, and that the discovered resource(s) remain at the project site at the direction of the on-site Chumash Tribal representative and the University.

5.18.3 Cumulative Impacts

The proposed Project would be required to implement measures to minimize the potential for significant impacts to tribal cultural resources located on and near the project site. In addition, proposed mitigation measures identify specific requirements that must be implemented in the event that resources are detected, and proposed mitigation measure CUL-1d regarding the treatment of discovered resources accommodates a consultation request from the Santa Ynez Band of Chumash Indians. Since the potential for the Project to impact known intact cultural resources is low, and mitigation measures would be implemented to reduce unanticipated impacts to a less than significant level, the Project would not result in cumulatively considerable impacts to tribal cultural resources and its potential cumulative impacts would be **less than significant**.

5.18.4 Mitigation Measures

Potential impacts of the proposed Project on Tribal Cultural Resources would be reduced to a less than significant impact with the implementation of mitigation measures CUL-1a through CUL-1f included in Section 5.5.4 above. No additional mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.19 UTILITIES AND SERVICE SYSTEMS - Would the project:					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	✓	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	✓	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	✓	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	✓	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	✓	☐

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact

5.19.1 Setting

Wastewater Treatment and Disposal. The Goleta Sanitary District (GSD) provides wastewater treatment service for UCSB and wastewater from the Main Campus is sent directly to the GSD for treatment and disposal. The GSD operates the Goleta Wastewater Treatment Plant, which is located southeast of the Santa Barbara Municipal Airport. The treatment plant has a design capacity of 9.7 million gallons per day (MGD), however, the NPDES permit issued by the Central Coast Regional Water Quality Control Board for the plant's ocean outfall sets a plant capacity limit of 7.64 MGD. Current average daily dry weather flows into the treatment plant are approximately 4.8 MGD (GSD, 2013).

UCSB has a contractual capacity ownership of 7.09% of the GSD treatment plant's permitted capacity, which is equivalent to 0.542 MGD. In February, 2020, UCSB's wastewater flow directly to the treatment plant was approximately 0.185 MGD (GSD, 2020). Based on current average flow data and the University's ownership allocation, there is approximately 0.357 MGD of additional permitted capacity for the University at the Goleta Sanitary District Treatment Plant.

Wastewater from the UCSB Storke, West and North Campuses is sent to the Goleta West Sanitary District (GWSD). The GWSD owns a 40.8 percent share of the GSD treatment plant capacity, which is equivalent to approximately 3.12 MGD. In 2019, average dry weather flows to the GWSD system was approximately two million gallons per day (GWSD, 2019).

Water Supply. The Goleta Water District (GWD) provides potable water service for the City of Goleta and surrounding areas, including UCSB. Most of the water provided by the District is from Lake Cachuma and the State Water Project. Additional supply sources include groundwater from the Goleta North/Central Groundwater Basin and recycled water.

The GWD adopted its *2020 Urban Water Management Plan* (UWMP) on June 8, 2021. As described by the UWMP, the GWD supplied a total of 11,546 acre feet of water in 2020, consisting of 606 acre feet of imported water from the State Water Project, 9,389 acre feet of surface water from Lake Cachuma, 822 acre feet of groundwater from the Goleta Groundwater Basin, and 729 acre feet of recycled water from the Goleta Wastewater Treatment Plant.

Under an amended 1993 agreement between the GWD and the University Exchange Corporation and subsequent designations, UCSB has the right to receive up to 200 AFY of

potable water service from GWD for use on the historic Bishop Ranch area. UCSB Lands within the historic Bishop Ranch include the North Campus and the parts of West Campus that are north of El Colegio Road, or generally west of the Devereux Slough. Land uses in this area include several UCSB housing projects, including the West Campus Apartments (250 units), Sierra Madre Apartments (152 units) and the Ocean Walk Faculty Housing project (154 units upon buildout). The 2010 LRDP indicates that housing units on the UCSB campus have a potable water demand of 0.152 gallons/unit/year. Therefore, the 556 existing and approved residential units on the North Campus have a water demand of 122.4 acre feet per year. Based on this water demand, 77.6 acre feet of water remains under the 1993 University Exchange Corporation entitlement.

The entire UCSB campus uses recycled water for landscape irrigation. In April 1998, UCSB entered into an agreement with the Goleta Water District for the "first right of refusal" to 280 AFY of recycled water from the Goleta Sanitary District Wastewater Treatment Plant. UCSB uses an average of 143 AFY of recycled water for approximately 90% of its irrigation needs.

Solid Waste Disposal. Solid waste generated on the UCSB campus is collected by the Marborg Company and transported to the Tajiguas Landfill for disposal. The Tajiguas Landfill is operated by the County of Santa Barbara, and is located approximately 20 miles west of the UCSB campus. The landfill accepts solid waste primarily from the cities of Santa Barbara and Goleta and unincorporated Santa Barbara County south coast areas. Final approvals by the Regional Water Quality Control Board and California Integrated Waste Management Board were obtained in 2003 to expand the landfill, and minor changes to the landfill's waste disposal area were approved in 2009.

In July 2016, the County of Santa Barbara Board approved the construction and operation of the Tajiguas Resource Recovery Project, which consists of a Materials Recovery Facility, Anaerobic Digestion Facility, and a Compost Management Unit. This project is located at the landfill and includes a materials recovery facility to recover recyclable material, a dry fermentation anaerobic digestion facility to process organic waste into biogas, and an energy facility to generate electricity using the produced biogas fuel. The project became operational in 2021. With the operation of the recovery facility, it is expected the landfill has capacity to operate until 2036.

The University of California and UCSB has taken a very active approach towards reducing the amount of generated solid waste and the amount of waste that is sent to a landfill for disposal. The University's Policy on Sustainable Practices established waste disposal diversion goals of 50 percent to be achieved by 2008, 75 percent by 2012, and 100 percent by 2020. During the 2012-2013 fiscal year, UCSB achieved an overall solid waste diversion rate of approximately 70 percent excluding construction and demolition waste, and a diversion rate of approximately 79 percent including construction and demolition waste (UCSB, 2013).

5.19.2 Checklist Responses

a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power,*

natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed Project would result in the restoration of open space and would not result in the construction or operation of any facility that would require wastewater treatment, stormwater drainage facilities, the use of electricity or natural gas, or telecommunication facilities. The Project would require the short-term use of water for dust control and plant irrigation, and those water sources are available on the UCSB North Campus. Therefore, the Project would result in **less than significant** impacts related to the relocation or construction of new utility systems.

b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

The project site would be restored to a natural condition and restored open space. No other development is proposed that would require a short- or long-term use of water. Potable and recycled water would be used at the project site for plant irrigation and dust control. Plant irrigation may be required for up to two rainy seasons following planting, but it is expected that supplemental watering during the first year would be sufficient for successful plant establishment. The long-term objective is to encourage deep root development and gradual weaning from dependence on supplemental water. The use of water for dust control purposes would occur over the Project's three- to four-month construction period. Adequate potable and recycled water supplies are available for the Project's short-term needs under the 1993 University Exchange Corporation entitlement from the GWD, and the 1998 recycled water agreement with the GWD. Therefore, the Project would have a **less than significant** impact on the available water supplies.

c) *Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

No structures or uses that would generate wastewater are proposed for the project site. Therefore, the Project would have **no impact** on wastewater treatment capacity.

d) *Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

A Draft EMT Facility and Equipment Inventory and Waste Management Plan has been prepared for the Project, and it is estimated that approximately 2,578 tons of demolition-related material would be generated. Table 5.19-1 provides additional information regarding the Project's short-term generation of waste material.

Of the approximately 1,740 tons of waste generated by proposed demolition-related activities, it is estimated that approximately 1,568 tons would be sent to recycling

facilities or be reused. This recycled waste would consist of electrical equipment (e.g., transformers, cables), piping, structures (e.g., pump house, guard shed, control building, chain link fence, concrete tank foundations), tanks and eucalyptus trees (to be mulched and reused onsite). Domestic/construction waste and vegetation (non-native plants) are estimated at 40 tons and would be disposed of at a local landfill. Abated hazardous materials (e.g., asbestos containing material) and power poles, estimated at 42 tons would be disposed of at a licensed hazardous waste disposal facility. The seawater recovered from the loading line and any water used to rinse and clean out the tanks and piping are estimated at 70 tons and would be disposed of at a licensed treatment facility. Contaminated soils (e.g., under and around the storage tanks) are unknown at this time and would be trucked to a licensed thermal desorption facility for reclamation. The estimated 40 tons of waste that would be disposed of at a local landfill would not exceed the available disposal capacity of the Tajiguas Landfill. Therefore, the Project's solid waste disposal would result in a **less than significant** impact.

Table 5.19-1
Estimated Waste Generation and Disposal

Category	Equipment / Materials	Truck Loads	Estimated Weight (tons)
Materials to be recycled:			
Electrical	Transformers	0.2	4.2
	Power transmission Cables	0.1	2.1
	Control panels	0.1	1
	Line 96 meter skid	1	6
	Loading meters	0.2	2
	Cathodic Protection	0.1	0.5
Mechanical	Loading Pump	0.2	4.2
	Ballast Pump	0.1	2.1
Piping	6" line 96 inlet line	1	21
	14" loading pump suction line	0.5	10.5
	12" outlet line	1	21
	10" beach and offshore line	2.8	58.8
	Water Line size varies	1	21
	Various size unknown	0.1	2.1
Structures	Pump House, metal	0.1	1.05
	Pump House, concrete found.	2	42
	Control Building. Metal	0.1	0.42
	Control Building, conc. found	1.4	29.4
	Guard Shed	1	21
	Misc. concrete foundations	0.8	16.8
	Asphalt Paving 600' x 10'	4.7	98.7

Table 5.19-1
Estimated Waste Generation and Disposal

	Roadway gravel underlayment	9.3	195.3
	oil tank foundations (2)	23.3	489.3
	water tank foundation	2.4	50.4
	ballast tank foundation	0.1	2.1
	Chain link fence	2	42
Tanks	65,000 bbl oil	13	280
	65,000 bbl oil	13	280
	10,000 bbl water	2	42
	1,000 bbl ballast	0.1	2.1
Solids	Potential contaminated soil at licensed thermal desorption facility	3	60
Total material to be recycled		**74.3**	**1,567.8**
Material to be disposed at landfills:			
Trash	Domestic/Construction	2	30
Vegetation	Cleared Non-Native Plants	2	10
	Abated hazardous materials	1	20
Electrical	Power poles removed by Project Power poles removed by SCE	1 1	21 21
Total material to be disposed at landfills		**7**	**102**
Materials to be disposed at licensed treatment facilities:			
Liquids	1,000 bbl seawater and wash water to water treatment facility	4	70
Total material to be disposed at licensed facilities		**4**	**70**
TOTAL PROJECT-GENERATED WASTE		**85.3**	**1,739.8**

e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Short-term Project-related activities would not generate a substantial amount of solid waste that would require landfill disposal, as approximately 93 percent of the waste material generated would be recycled or reused. Therefore, the Project would have a **less than significant** effect regarding the implementation of solid waste disposal regulations.

5.19.3 Cumulative Impacts

The Project would not have a long-term water demand; would not be a long-term source of wastewater generation; or result in the short-term generation of a substantial amount of solid waste. Therefore, the Project's cumulative water supply, wastewater, and solid waste generation impacts would not be cumulatively considerable and the Project would result in **less than significant** cumulative utility and service system impacts.

5.19.4 Mitigation Measures

The Project would not result in significant impacts to utilities and service systems. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.20 WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	✓	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	✓	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐	✓
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	✓	☐

5.20.1 Setting

The UCSB Campus is not located within a designated "very high fire safety hazard zone" as determined by Cal Fire (2008). However, the 2010 LRDP Final EIR states that large, grassy open areas on the campus (such as the proposed project site) have a "moderate" wildfire risk.

The project site is located approximately one mile from Fire Station #11, located at 6901 Frey Way, near Girsh Park in Goleta. The UCSB campus is located in a Local Responsibility Area and the Santa Barbara County Fire Department is responsible for providing fire prevention and suppression services.

5.20.2 Checklist Responses

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

UCSB maintains a campus-wide Emergency Operations Plan (EOP) that establishes emergency response procedures. The EOP establishes a chain of command during emergencies, and provides requirements for individual departments to prepare their own EOPs for immediate response to emergency situations. The project site is not in a designated very high fire safety hazard zone, would not result in new structural development, and would not be a substantial long-term source of traffic. Therefore, the Project would have a **less than significant** impact related to emergency response or evacuation plans.

b) *Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

The existing vegetation on the project site is predominately non-native grassland and other non-native vegetation such as eucalyptus trees. The existing vegetation generally has a moderate to high wildfire risk. The Project's proposed restoration plan would remove the non-native grassland and other vegetation, such as the highly flammable eucalyptus trees, and the site would be planted with native species, which have varying fire risk from moderate to high. Therefore, the proposed planting plan would not result in a substantial change in wildfire risk at the project site, and the Project would have a **less than significant** fire risk impact.

c) *Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The proposed Project would demolish existing structural development on the project site and restore the site to open space. The Project does not include the installation or maintenance of new roads, structures, power lines, or population that would have the potential to exacerbate existing fire risk. Therefore, the Project would have **no impact** related to an increase in wildfire risk impacts.

d) *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The project site is predominately level and slopes gently to the south. The site does not present a substantial risk of slope movement risk impacts. In addition, there are no water courses on the project site that may be affected post-fire drainage changes. Therefore, the Project would have **less than significant** impacts related to potential fire-related flooding, landslide, debris flow, or other related impacts.

5.20.3 Cumulative Impacts

The project site is not located in a designated Very High Fire Hazard Safety Zone and is within the Santa Barbara County Fire Department service area. The project would not substantially change existing wildfire-related risk impacts on or near the project site. Therefore, the Project's cumulative wildfire-related impacts would not be cumulatively considerable and would be less than significant.

5.20.4 Mitigation Measures

The Project would not result in significant wildfire impacts. No mitigation measures are required.

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
5.21 MANDATORY FINDINGS OF SIGNIFICANCE.					
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	✓	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☐	☐	✓	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✓	☐	☐

a. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

The proposed Project would have the potential to result in significant short-term impacts to biological resources located on the project site, and to marine resources located on and adjacent to the offshore loading line. The Project's short-term impacts to terrestrial resources can be reduced to a less than significant level with the implementation of proposed mitigation measures BIO-1a through BIO-10a; and impacts to marine resources would be reduced to less than significant with the implementation of proposed mitigation measure BIO. The Project would restore the degraded project site and result in the creation of new native habitat, which would have beneficial long-term wildlife effects. The Project would remove an existing chain link fence from the perimeter of the site, which would move a barrier to animal movement.

The Project also has the potential to result in significant impacts to recorded archaeological sites CA-SBA-1327 and CA-SBA-2341. Those potential impacts can be reduced to a less than significant level with the implementation of proposed mitigation measures CUL-1a through CUL-1f.

b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

This IS/MND has identified potential impacts in the areas of air quality (dust) biological resources, cultural resources, hazards and hazardous materials, transportation, and tribal cultural resources that require mitigation to reduce project-specific impacts to a less than significant level. The identified mitigation measures also reduce the identified project-specific effects to levels that are not cumulatively considerable. Therefore, the Project would not result in significant cumulative impacts.

c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

All of the proposed Project's significant and potentially significant environmental impacts can be reduced to a less than significant with the implementation of proposed mitigation measures. Therefore, the Project would not cause substantial adverse effects on human beings, either directly or indirectly. The proposed Project would restore the site to its natural condition, which would positively contribute to the biodiversity of the area.

5.22 FISH AND WILDLIFE DETERMINATION

Based on consultation with the California Dept. of Fish and Game, there is no evidence that the project has a potential for a change that would adversely affect wildlife resources or the habitat upon which the wildlife depends.

___ Yes (No Effect)

✓ No (Pay fee)

6.0 MITIGATION MEASURES

Mitigation Measures to Reduce Impacts to a Less Than Significant Level

Air Quality

IMPACT AQ-1 Dust emissions from project-related grading activities would result in a significant air quality impacts and contribute to existing non-attainment conditions for PM_{10}.

AQ-1a. The following dust control measures are required by the Santa Barbara County APCD. All of these measures shall be implemented at the project site during construction.

1. During construction, use water trucks, sprinkler systems, or dust suppressants in all areas of vehicle movement to prevent dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60 minute period. When using water, this includes wetting down areas as needed but at least once in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.

2. If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.

3. Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.

4. Onsite vehicle speeds shall be no greater than 15 miles per hour when traveling on unpaved surfaces.

5. Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, OR using roll-compaction, OR revegetating, OR by spreading soil binders until the area is paved or otherwise

developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.

6. Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (>25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by onsite operations from becoming a nuisance or hazard.

7. The contractor or builder shall designate a person or persons to monitor and document the dust control program requirements to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to the start of grading activities.

Biological Resources

IMPACT BIO-1 The removal of invasive non-native species from the project site has the potential to result in impacts from the spread of those species.

BIO-1a A biological monitor(s) will conduct a worker orientation for all construction contractors (including site supervisors, equipment operators, and laborers) which emphasizes the presence of special status species within the project site, identification of those species, their habitat requirements, applicable regulatory policies and provisions regarding their protection, measures being implemented to avoid and/or minimize impacts, and penalties for noncompliance will be conducted. Workers will be provided with a brochure or handout presenting special status species within the project site. To document compliance, workers will be required to sign an acknowledgment statement signifying program completion and an onsite log of workers trained will be maintained.

IMPACT BIO-2 Implementation of the Project would result in impacts to sensitive habitat located on and adjacent to the project site.

BIO-2a Prior to construction, a qualified biologist shall delineate the boundaries of wetland habitat, native grasslands, and areas that support tarplant that will not be affected by grading and site

restoration. These boundaries shall be demarcated with temporary fencing to prevent inadvertent damage during demolition and grading. The single coast live oak at the entrance to the project site shall also be fenced for avoidance.

IMPACT BIO-3 Implementation of the Project would have the potential to impact a single coast live oak tree near the entrance to the project site.

BIO-3a A Tree Protection Plan (TPP) shall be prepared by an arborist and/or biologist and designed to protect the onsite oak tree during project activities. The following shall be included on the TPP Plan:

a. Fencing of all trees to be protected at least six feet outside the dripline with chain-link (or other satisfactory material) fencing at least 3 ft high, staked to prevent any collapse, and with signs identifying the protection area placed in 15-ft intervals on the fencing.
b. Fencing/staking/signage shall be maintained throughout all demolition and grading activities.
c. No irrigation is permitted within 6 feet of the dripline of the protected tree unless specifically authorized.
d. The following shall be completed only by hand and under the direction of an arborist/biologist:
    i. Any trenching required within the dripline or sensitive root zone.
    ii. Cleanly cutting any roots of one inch in diameter or greater, encountered during grading or construction.
    iii. Tree removal and trimming.
e. Special equipment: If the use of hand tools is deemed infeasible work with rubber-tired construction equipment weighing five tons or less may be used.
f. Grading shall be designed to avoid ponding and ensure proper drainage within the dripline of the oak tree.

IMPACT BIO-4 Removal of the onshore portion of the loading line located near the coast has the potential to result in short-term impacts on globose dune beetle and California legless lizard.

BIO-4a Prior to removal of the loading line at the coast, surveys of sandy dune habitat will be conducted for globose dune beetle and California legless lizard. If either or both of these species are found to be present, they shall be captured and relocated by a qualified biologist. If presence is confirmed during pre-project surveys then all work in the dune habitat shall be monitored by a qualified biologist and dune beetles and legless lizards shall be captured and relocated if encountered.

IMPACT BIO-5 Removal of the on-site ballast water pond has the potential to result in impacts on California red-legged frog.

BIO-5a Prior to restoration of the ballast pond presence/absence surveys acceptable to the U.S. Fish and Wildlife Service for California red-legged frog shall be completed, as described in U.S. Fish and Wildlife Service Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (August 2005). If California red-legged frogs are found, USFWS shall be consulted and any necessary approvals and/or permits obtained. No work may occur in the ballast pond without USFWS concurrence, if California red-legged frogs are found to be present.

IMPACT BIO-6 Modification of the on-site ballast water pond has the potential to result in impacts on southwestern pond turtle.

BIO-6a Prior to restoration of the ballast pond, a survey acceptable to the California Department of Fish and Wildlife (CDFW) shall be conducted by a biologist holding a valid CDFW Scientific Collecting Permit. The survey will be conducted to assess the habitat quality, detect pond turtle presence, and determine if the site is better suited for seining and/or trapping. Approximately 2 feet of water is required for trapping. Surveys will be conducted by walking upstream or around the suitable habitat. Pools will first be observed from a distance using binoculars and then approached slowly and methodically to prevent disturbing any pond turtles. If the habitat is deemed suitable and trappable during the survey, the *"Western Pond Turtle (Emys marmorata) Trapping Survey Protocol for the Southcoast Ecoregion"* (USGS 2006) will be used to evaluate trap locations and set turtle traps. If conditions are such that suitable habitat is not available within the ballast pond at the time of trapping, CDFW will then be consulted and an alternative, off-site location will be identified prior to trapping. Turtles will be transported in buckets and released as soon as possible after trapping into the dune swale pond on the Coal Oil Point Ecological Reserve, or an alternative off-site location identified by CDFW.

If the site is not suitable for trapping, then seining methods will be used. A suitably-sized seine will be used based on pool size and location. Seining methods will generally consist of ensuring the seine bottom is properly weighted and flush with the pool bottom contours with the seine set perpendicular to the stream or pond. At least two biologists will then slowly walk the seine across to the opposite bank. Upon reaching the opposite bank, the seine will be

checked for species captured. Care will be taken to seine the entire stream or pool area to ensure no turtles are missed.

IMPACT BIO-7 Removal of the on-site eucalyptus trees and trimming eucalyptus along the access road to the beach has the potential to result in impacts on monarch butterflies.

BIO-7a A biologist shall conduct surveys for aggregations of monarch butterflies if removal of mature trees must take place during the monarch butterfly overwintering season (October 1 to March 31). Surveys shall be conducted within areas of suitable habitat where mature trees are proposed to be removed.

If aggregations of monarch butterflies are discovered during pre-construction surveys or during construction activities and are determined to be impacted during construction, the applicable agency shall be notified and these areas shall be avoided and impacts shall be minimized to the extent practical. A biologist shall make recommendations for avoiding and minimizing impacts. Locations of roosting monarchs shall be marked on an aerial map and provided to the construction crew on a weekly basis. Tree removal shall be delayed until the butterflies abandon the roosts (typically around April 1 to September 30). The biological monitor(s) shall be responsible for documenting the results of the surveys and ongoing monitoring and shall provide a copy of the monitoring reports to the appropriate agencies as applicable.

During the monarch butterfly's breeding season (February to August), larval monarchs may be present in onsite habitats containing milkweed plants. The vegetation to be removed by the project would include habitats where milkweed plants and larval monarchs could occur. Prior to vegetation removal, surveys shall be conducted to identify any milkweed plants growing within the work area. If milkweed is observed, it shall be inspected for monarch butterfly caterpillars or eggs. If present, minimization measures shall be enacted to either relocate or avoid any milkweed containing monarch butterfly caterpillars or eggs.

IMPACT BIO-8 Removal of the onshore portion of the loading line located near the coast has the potential to result in short-term impacts on snowy plover and California least tern.

BIO-8a. The following measures shall be implemented to minimize or avoid impacts to western snowy plover and California least tern:

1. Removal of the loading line shall be scheduled to avoid the nesting season for California least tern and Western snowy plover (March 1 through September 30).
2. A biologist shall conduct a Worker Awareness Training Program for all project personnel. Training will occur prior to initial construction activities and repeated, as necessary for new workers. The training program will include a description of: (1) biological sensitivities of the project area; (2) regulatory context (e.g., permit conditions, Federal Endangered Species Act); specific measures to avoid impacts to western snowy plover and least tern; species identification and behavior; (3) the roles and responsibilities of project personnel; and (4) communication protocols and contingencies if western snowy plovers are detected in the work zone.
3. The biologist shall monitor construction to ensure compliance with permit conditions of approval. The biologist will have the authority to temporarily halt activities if permit requirements and conditions are not being met.
4. Prior to construction, the limits of the work zone, staging areas, and access routes shall be delineated and clearly marked in the field. The boundary of the western snowy plover nesting area (as determined by the Manager of the Coal Oil Point Ecological Reserve) shall be delineated with fencing and signage.
5. The biologist shall conduct a survey of the work area each morning, prior to the start of construction activity. If western snowy plovers are found roosting within 300 feet of the construction zone, work shall be delayed until the birds have left on their own accord.
6. Vehicle speeds shall not exceed 10 miles-per-hour operating on or near the beach.
7. The manager of the Coal Oil Point Ecological Reserve shall be consulted regarding any additional measures necessary to avoid harassment or take of these species, if present in or near the work area.
8. Foredune habitat affected by pipeline removal shall be restored in accordance with the Project's Habitat Restoration Plan. Excavations shall be backfilled and shoreline habitats shall be returned to original grade at the end of each work day.

IMPACT BIO-9 Implementation of the Project would have the potential to result in the destruction of active raptor and other bird nests and/or the abandonment of active nests. .

BIO-9a To avoid disturbance or loss of active bird nests during development under the 2010 LRDP, any removal of eucalyptus, coast live oak, pine, cypress, or other trees that provide nesting habitat for birds, or disturbance of natural grassland areas shall be conducted between September 15 and February 15, outside of the typical nesting season.

BIO-9b If tree removals or disturbance of natural grassland areas are determined to be necessary during the typical nesting season (February 15 to September 15), nesting bird surveys shall be conducted by a qualified biologist immediately prior to the proposed action. Surveys shall follow standard protocols as established by CDFW and/or CCC. If the biologist determines that a tree or natural grassland area is being used for nesting at that time, disturbance shall be avoided until after the young have fledged from the nest and achieved independence. If no nesting is found to occur, necessary tree removal or grassland disturbance could then proceed.

BIO-9c To avoid indirect disturbance of active bird nests by project construction occurring within the typical nesting season, a qualified biologist shall be retained to conduct one or more pre-construction surveys per standard protocols approximately 1 week prior to construction, to determine presence/absence of active nests adjacent to the project site. If no breeding or nesting activities are detected within 200 feet of the proposed work area, noise-producing construction activities may proceed. If breeding/nesting activity is confirmed, work activities within 200 feet of the active nest shall be delayed until the young birds have fledged and left the nest.

IMPACT BIO-10 Implementation of the Project would have the potential to result in impacts to bats that may be located on the project site.

BIO-10a Prior to demolition of the operations control room and pump house, a qualified biologist shall inspect these structures for presence of roosting bats. If bats are found to be present, a bat specialist shall be consulted as to the best method of capture and relocation. If a natal roost is found, demolitions shall be delayed until the young have weaned.

IMPACT BIO-11 Removal of the offshore loading line has the potential to result in significant impacts to seagrass and kelp habitats, and to grunion habitat.

BIO-11a At least 90 days prior to the initiation of decommissioning activities, a survey shall be conducted and used for project planning and to ensure avoidance of sensitive habitats to the extent feasible during project activities. This survey shall provide the basis for the Anchoring Plan required by mitigation measure BIO-12a. A dive/ROV survey shall be conducted at the proposed anchor locations and along the pipeline corridor to ensure that avoidance of sensitive species and hard bottom habitat areas is achieved and to determine the presence or absence of the invasive algae (*Caulerpa taxifolia*) and seagrasses. Prior to the commencement of the survey, the following shall be completed:

2. At least 2 weeks before commencement of the pre-construction survey a survey scope and methodology shall be submitted to CSLC staff, CCC, BSEE, and NMFS for review and approval.

2. The survey scope and methodology shall:

   a) Identify survey goals, which shall include but not necessarily be limited to surveys of hard bottom habitat areas, areas where eelgrass and kelp are present, locations of pipelines, etc.
   b) Identify the personnel and types of equipment to be used in the survey, such as remotely operated vehicle (ROV), sidescan sonar, diver surveys, etc.
   c) Identify how survey data will be provided to the agencies, such as maps (including scale and resolution), video, etc.

3. All surveys employing low-energy geophysical equipment, including ROV surveys, shall be conducted by an entity holding a valid Permit under the CSLC's Offshore Low Energy Geophysical Survey Permit Program (see www.slc.ca.gov/Division_Pages/DEPM/OGPP/OGPP.html).

BIO-11b No more than 30 days following completion of all offshore activities, a dive/ROV survey shall be completed and submitted to the CSLC. The survey shall:

3. Include the entirety of the area affected by the Project, including all anchor locations to confirm seafloor cleanup and site restoration.

Document any impacts to sensitive species and habitats that could have resulted from construction activity.

4. Be conducted by an entity holding a valid Permit under the CSLC's Offshore Low Energy Geophysical Survey Permit Program if the survey employees low-energy geophysical equipment, including ROV surveys: www.slc.ca.gov/Division_Pages/DEPM/OGPP/OGPP.html.

BIO-11c. A post-project technical report shall be prepared no more than 60 days following completion of the post-project marine biological survey (mitigation measure 11b) and be submitted for review and approval to CSLC, CCC, BSEE, and NMFS. The report shall include at a minimum the following information:

4. A map of the survey route noting the location of any impacted areas;

5. Quantification (in square meters) of seafloor impacts and estimated numbers and species of organisms affected if any;

6. If required, a restoration proposal that is based on the results of the survey and proportional to the actual amount of rocky habitat, kelp, and eelgrass affected. The proposal shall contain:

   a) Direct restoration actions that repair or restore affected areas and/or a contribution to an ongoing restoration program in the area (e.g., SeaDoc Society Lost Fishing Gear Recovery Project), as specified by agencies staff.
   b) An eelgrass restoration strategy that adheres to the Southern California Eelgrass Mitigation Policy and includes a requirement to use only native eelgrass (e.g., *Zostera marina*) for restoration purposes, where appropriate.
   c) Performance criteria for the restored eelgrass.
   d) A schedule for implementing and completing the required restoration.
   e) Value of posted performance securities.

BIO-11d Intertidal activities shall be scheduled outside of the grunion spawning season, which is generally three or four nights after the highest tide associated with each full or new moon in spring and summer.

IMPACT BIO-12 Project vessel anchoring has the potential to create localized turbidity and affect nearby eelgrass beds, kelp (algae) beds, soft-bottomed seafloor habitat, and rocky substrate.

In addition to the implementation of mitigation measures BIO-11a, 11b, and 11c, the following mitigation measures shall be implemented.

BIO-12a At least 90 days prior to commencement of offshore activities, an Anchoring Plan shall be prepared and submitted to CSLC, CCC, Bureau of Safety and Environmental Enforcement (BSEE), and NMFS for review and approval. At minimum, the anchoring plan shall describe how, based on the results of the pre-project habitat survey (mitigation measure BIO11a), vessels will avoid placing anchors on sensitive ocean floor habitats and pipelines. The Anchoring Plan shall include at least the following information:

5. A list of all vessels that will anchor during the project and the number and size of anchors to be set;
6. Detailed maps showing proposed anchoring sites that are located at least 40 ft (12.2 m) from rocky habitat identified during the Pre-Project Habitat Survey;
7. A description of the navigation equipment that would be used to ensure anchors are accurately set; and
8. Anchor handling procedures that would be followed to prevent or minimize anchor dragging, such as placing and removing all anchors vertically.

BIO-12b A Project-specific Oil Spill Contingency Plan (OSCP) shall be developed and submitted to UCSB, CSLC, and the CCC for review and approval 90 days prior to Project implementation. and implemented during all Project activities in the event of a release of oil or contaminants. The OSCP shall include prevention measures including daily inspection of equipment, refueling at designated stations, and secondary containment for equipment to prevent spills. Additionally, work sites shall maintain onsite response equipment to clean up minor spills. In the event of a major spill (greater than five barrels), the OSCP requires utilization of an independent oil spill response contractor (i.e., Marine Spill Response Corporation) to provide secondary cleanup.

IMPACT BIO-13 The operation of vessels at and near the offshore loading line project site has the potential to result in significant impacts to migrating whales and pinnipeds.

BIO-13a A Marine Wildlife Monitoring and Contingency Plan (MWMCP) shall be prepared and submitted to CCC, NMFS and CSLC staff for review and approval at least 60 days prior to commencement of Project activities. The approval Plan shall be implemented during offshore project activities. The MWMCP shall include the following:

7. Marine Mammal Monitors shall be trained by a marine mammal expert to recognize and avoid marine mammals prior to Project-related activities. Training sessions shall focus on the identification of marine mammal species, the specific behaviors of species common to the Project area and barge routes, and awareness of seasonal concentrations of marine mammal species.
8. Vessel operators will make every effort to maintain a distance of 1,000 feet (305 m) from sighted whales and other threatened or endangered marine mammals or marine turtles. Marine Mammal Monitors shall observe offshore decommissioning activity to ensure that animals entering a 500-foot Minimum Safety Zone are not harmed.
9. Marine Mammal Monitors shall have the authority to direct suspension of work activity if deemed necessary to ensure safety of animals approaching within 200 feet.
10. All observations of marine mammals shall be documented. Collisions with marine wildlife shall be reported promptly to the Federal and State agencies listed below pursuant to each agency's reporting procedures.

    Stranding Coordinator, Southeast Region
    National Marine Fisheries Service
    Long Beach, CA 90802-4213
    (310) 980-4017

    Enforcement Dispatch Desk
    California Department of Fish and Game
    Long Beach, CA 90802
    (562) 590-5132 or (562) 590-5133

11. Vessel speeds shall be limited to 2 knots for the barge and 3-5 knots for support vessels within 1 mile of the work area to reduce the possibility of collisions.
12. Support vessels will not cross directly in front of migrating whales, other threatened or endangered marine mammals, or marine turtles. Female whales will not be separated from their calves, and vessel operators will not herd or drive whales. If a whale engages in evasive or defensive action, support vessels will drop back until the animal moves out of the area.

IMPACT BIO-14 Vessels used to remove the offshore loading line have the potential to result in the release of contaminants that have the potential to result in significant impacts to marine resources.

Implementation of mitigation measure BIO-12b, which requires the implementation of a project-specific Oil Spill Contingency Plan, would reduce the effects of this potential impact to a less than significant level. No additional mitigation is required.

Cultural Resources and Tribal Cultural Resources

IMPACT CUL-1 Ground disturbing activities at the Project site have the potential to result in significant impacts to cultural resources.

CUL-1a. A pre-construction meeting shall be conducted by an archaeologist and a Chumash Tribal representative. Meeting attendees shall include the archaeologist, local Chumash Tribal representative, construction supervisors, and heavy equipment operators to ensure that all parties understand the cultural resources monitoring program and their respective roles and responsibilities. All construction personnel who would work on the site during any phase of ground disturbance shall be required to attend the meeting. The names of all personnel who attend the meeting shall be recorded denoting that they have received the required training.

The meeting shall review the following: types of archaeological resources that may be uncovered; provide examples of common archaeological artifacts and other cultural materials to examine; describe why monitoring is required; what makes an archaeological resource significant; identify monitoring procedures; what would temporarily halt construction and for how long; describe a reasonable resource discovery scenario (i.e., feature or artifact); and describe reporting requirements and the responsibilities of the construction supervisor and crew. The

meeting shall make attendees aware of prohibited activities, including vehicle use in protected areas, and educate construction workers about the inappropriateness of unauthorized collecting of artifacts that can result in impacts on cultural resources.

CUL-1b. An archaeologist and Chumash Tribal provided monitor shall be retained to monitor activities conducted on the project site, such as the removal of existing paving, initial grading activities, ground disturbing activities, and the removal of on-site trees.

CUL-1c. The archaeologist and Chumash Tribal Monitor shall have the power to temporarily halt or redirect project construction in the event that potentially significant cultural resources are exposed. Based on monitoring observations and the actual extent of project disturbance, the archaeologist shall have the authority to refine the monitoring requirements as appropriate (i.e., change to spot checks, reduce or increase the area to be monitored) in consultation with the UCSB Office of Campus Planning and Design. Upon completion of the monitoring program a monitoring report shall be presented to the UCSB Office of Campus Planning and Design and to the Central Coast Information Center (CCIC).

CUL-1d. In the event that archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until a Chumash Tribal representative an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately evaluated, work in the area may resume. Significant cultural resources shall remain on-site at the direction of the Chumash Tribal representative and the University.

CUL-1e. If human ancestral remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner (or if necessary an osteologist/zooarchaeologist) has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. If avoidance of the remains is not feasible, they shall be excavated and removed by a qualified archaeologist in the presence of the Most Likely Descendent. Repatriation of the exhumed remains and all associated items shall be conducted in accordance with the requirements of the Chumash Tribal Representative and the California Native American Graves Protection and Repatriation Act (Health and Safety Code 8010-8011).

CUL-1f. During the time that proposed demolition and restoration activities occur, an Environmentally Sensitive Area (ESA) shall be established consisting of the area outside the project fence for CA-SBA-2341. The ESA boundary shall be shown and labeled on project plans. No ground disturbance shall occur within the designated ESA. Additionally, orange construction or other suitable fencing shall be installed for the duration of the project at the boundary of the archaeological site to prevent construction personnel and equipment from incursion into the area. In no case shall mapped ESAs be identified as cultural resources to keep their location confidential.

Hazards and Hazardous Materials

IMPACT HAZ-1 Existing contamination at the project site has the potential to result in significant environmental impacts.

HAZ-1a An additional Site Assessment Plan and Remediation Plan for the project site shall be submitted for Regional Water Quality Control Board (RWQCB) and UCSB approval. The Site Assessment Plan shall be designed to document the type and extent of contamination in the project site's soil, sediment, surface and ground water with sampling focused on areas not accessible during the Tier 1 Site Assessment. The additional Site Assessment Plan and Site Remediation Plan shall be reviewed and approved by RWQCB and UCSB prior to the start of proposed demolition activities. A final Remediation Plan derived from the sampling and analysis of the Site Assessments shall be provided to RWQCB and UCSB for review and approval. Any remediation in and around the ballast pond shall evaluate potential impacts to ecological resources. Excavation of surficial soil may occur during the demolition activities or prior to implementing the grading plan.

Water Quality

IMPACT WQ-1 Sand jetting operations that may be used to uncover the loading line in nearshore areas has the potential to result in turbidity and reduced light impacts to kelp beds and rocky reef habitat.

WQ-1a. If sand jetting within the littoral zone is conducted, such as during loading line removal, and ocean conditions are favorable for curtain deployment, floating sediment curtains shall be deployed downstream of the jetting location to protect nearby kelp beds and rocky reef habitat.

Transportation

IMPACT TRF-1 **The movement of over-sized vehicles through the Storke Road/Sierra Madre Court intersection, and along the Sierra Madre Court roadway has the potential to result in short-term safety conflicts at the intersection and with residential traffic along Sierra Madre Court.**

TRF-1a. Flagmen and/or other appropriate traffic control/safety measures shall be utilized at the Storke Road/Sierra Madre Court intersection, and along the Sierra Madre Court roadway when over-sized vehicles enter or leave the project site.

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7.2 Contacts

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7.3 Preparers

This Initial Study/Mitigated Negative Declaration was prepared by UCSB Campus Planning and Design and Rodriguez Consulting, Inc., with assistance from Padre Associates.

Appendix A

Proposed Restoration Plan

Restoration and Monitoring Plan
Ellwood Marine Terminal Decommissioning

County of Santa Barbara
Case No. 13DRP-00000-00001

August 2015

Prepared for: **Venoco, Inc.**
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With assistance from Katherine Rindlaub

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ATTACHMENTS

LIST OF ACRONYMS AND ABBREVIATIONS

BA	Biological Assessment
CalIPC	California Invasive Plant Council
CCBER	Cheadle Center for Biodiversity and Ecological Restoration
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife (formerly Fish and Game, or CDFG)
CNPS	California Native Plant Society
COPR	Coal Oil Point Reserve
County	County of Santa Barbara
D&R	Demolition and Reclamation
EMT	Ellwood Marine Terminal
EOF	Ellwood Onshore Facility
EPA	Environmental Protection Agency
FAC	Facultative Wetland Plant
FSW	Feet Sea Water
MLLW	Mean Lower Low Water
OBL	Obligate Wetland Plant
PE Wetland	Palustrine Emergent Wetland
RPR	Rare Plant Rank
RWQCB	Regional Water Quality Control Board
UCSB	University of California, Santa Barbara
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey

1. INTRODUCTION

This Site Restoration and Monitoring Plan (R&M Plan) was developed in support of Venoco Incorporated's (Venoco) Ellwood Marine Terminal (EMT) Demolition and Reclamation (D&R) permit application. The 17.54-acre EMT Lease site is located adjacent to the Pacific Ocean, 0.75 mile (1.2 kilometers [km]) northwest of Coal Oil Point and west of Devereux Slough in Santa Barbara County, California (Figure 1-1). The site is at the east end of the Ellwood Mesa, part of a marine terrace that continues westward beyond suburban development, a golf course, and the Bacara hotel to agricultural and rangeland.

Figure 1-1. Location of EMT site and loading line easement. The 17.54-acre EMT site is outlined in red.

UC Santa Barbara (UCSB) is the current landowner and lease holder. This R&M Plan is intended to be implemented as D&R work is completed, and is designed to transfer the site to UCSB in a condition comparable to that found on surrounding lands

The recommendations in this Plan are based on the findings of a Biological Assessment (EMT BA 2014) and Addendum (KMA 2015), which assess the existing biological resources and potential impacts resulting from the demolition of EMT facilities and recontouring of the site as closely as possible to previous "natural" conditions.

A recent wetland delineation (KMA, 2014) and the EMT BA determined that the fire water and both oil storage tank containment areas support palustrine emergent wetlands and expanded (vs. 2012) southern tarplant (*Centromadia parryi* ssp. *australis*) populations. Potential impacts and mitigation measures resulting from removal of the remaining buried and nearshore portion

of the loading line were analyzed in the KMA Addendum to the EMT BA. The Addendum addresses potential backdune, foredune and sandy beach habitats that may support sensitive species including California grunion (*Leuresthes tenuis*), globose dune beetle (*Coelus globusus*), California legless lizard (*Anniella pulchra*), western snowy plover (*Charadrius alexandrinus nivosus*) and California least tern (*Sternula antillarum*).

1.1 Authority

The Final Environmental Impact Report (FEIR) for the Ellwood Pipeline Company Line 96 Modification Project (MRS/SAIC, 2011) stipulates the need for demolition and reclamation of the EMT site to a "natural condition consistent with surrounding properties". (Section 35.170.3 of County of Santa Barbara Article II Coastal Zoning Ordinance). Veneco is the responsible entity that will implement the D&R of the EMT.

2. PROJECT SETTING

The approximately 18-acre site is located in the western portion of the UCSB North Campus, and is bounded by the UCSB South Parcel to the north, the Coal Oil Point Reserve (COPR) to the south, and by undeveloped property in the City of Goleta's jurisdiction to the west. The adjacent Sperling Reserve on the Ellwood Mesa is designated as open space by the City of Goleta. UCSB's Cheadle Center for Biodiversity and Ecological Restoration (CCBER) and COPR are currently restoring native habitats on the South Parcel and COPR lands adjacent to the EMT site, including reclamation of estuarine wetlands, creation and restoration of vernal wetlands and perennial grassland, and re-introduction of coastal sage scrub and oak woodland habitats.

2.1 Project Site

The EMT Lease site is on a knoll perched above tidal wetlands and floodplains of the Devereux Slough and Goleta Valley. Figure 2-1, an excerpt of the US Geodetic Survey published in 1871, shows historic topography.

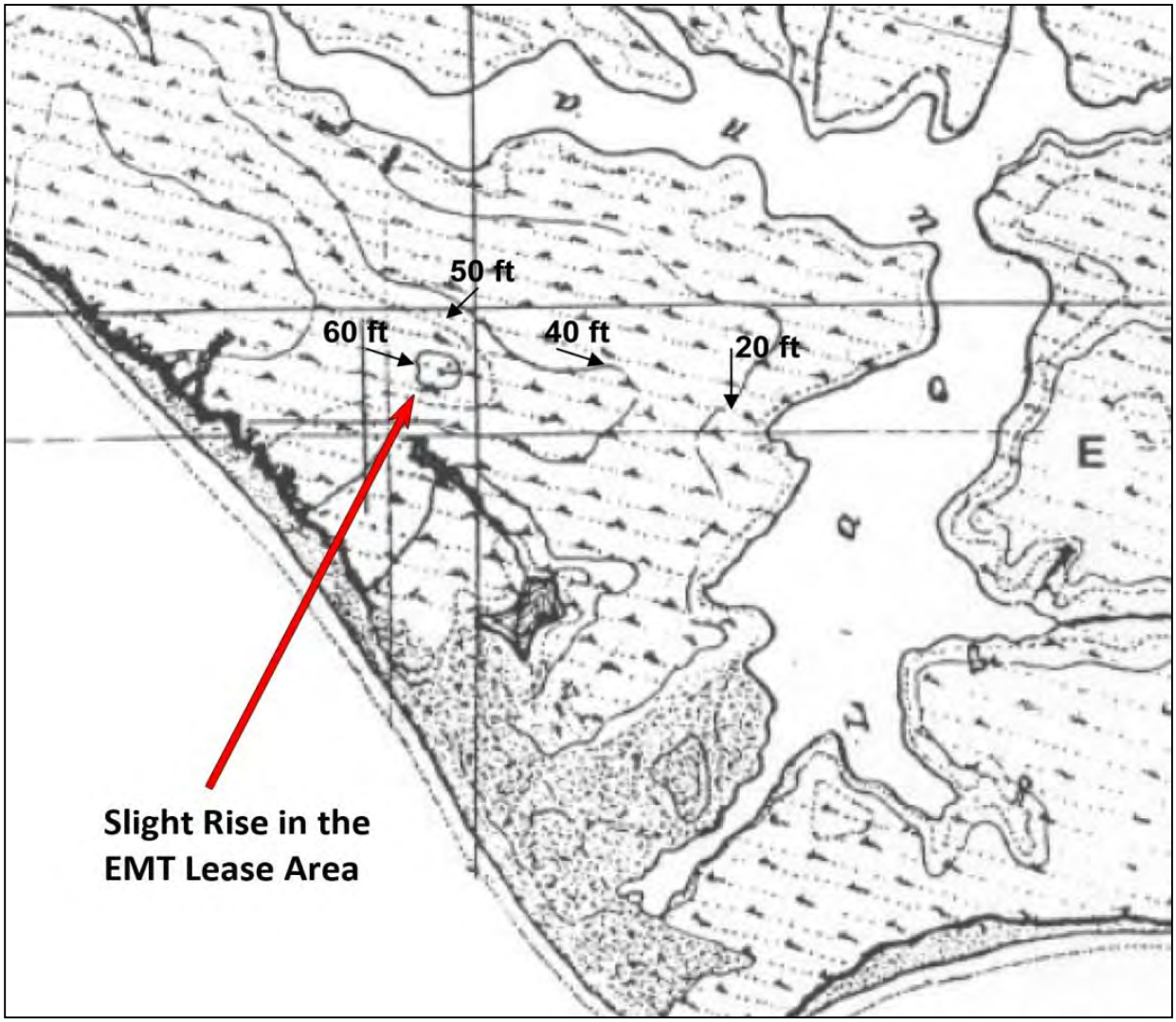

Figure 2-1. Topographic map circa 1871 indicating rise in elevation near the present location of EMT crude oil storage tanks (courtesy of UCSB).

The land falls gently to the west to a small unnamed drainage less than 1000 feet from the ocean. Another, possibly spring-fed drainage abruptly cuts across the knoll at the south lease boundary and continues its way eastward to the coastal dunes behind the sandy beach. The EMT site and adjoining lands are transitional to several distinct habitats. The isolated knoll is its own watershed, that is, vegetation on the knoll depends only on rainfall and fog for water.

The EMT site has been used for oil and gas production, storage or transport since the mid 1920's. Interpretation of Figure 2-2, an aerial photo (circa 1928), indicates the surrounding lands were most likely used for ranching, as no sign of crops or orchards is evident. That changed by

Figure 2-2. Aerial photograph (circa 1928) showing ranch lands and spring near the present location of the EMT (courtesy of UCSB).

1945, at which point an aerial photograph shows the open oil storage tanks, before covers were installed (Figure 2.3). Ranching apparently continued, but signs of row crops, and possibly orchards appear in the photograph.

The EMT facility was constructed to store and transport crude oil produced from the South Ellwood and Ellwood Fields and later from Platform Holly. Oil produced by ARCO, Mobil, and Venoco from Platform Holly was piped to the EOF for processing. Oil was then piped to the EMT facility for storage. Once designated crude oil volumes were met, oil was pumped via the loading line to marine barges for transport to refineries. Ballast water was transferred to and from the barges via a pump and storage tank system on the EMT. At some point, ballast water was stored onshore, filling a shallow pond now surrounded by vegetated wetland and pampas grass. Use of the 17.54-acre EMT ended with completion of an extension to Line 96 from the

Figure 2-3. 1945 aerial photograph showing uncovered storage tanks, surrounded by ranch lands (unknown source).

EOF to the Plains All American Pipeline Las Flores Canyon facility in 2012. The final oil transport barge was loaded on February 22, 2012, when the loading line, oil storage tanks and other EMT infrastructure became redundant.

2.2 Purpose of Plan

This R&M Plan is designed to allow transfer the EMT site to UCSB in a condition comparable to that found on surrounding lands, based on demolition of existing structures, grading to create natural contours where needed, preservation, enhancement, and creation of wetlands, invasive species removal, and revegetation with local, native plant species. The grading plan, site contours, planting areas, and plant lists have been developed in consultation with UCSB, CCBER, and COPR staff.

Demolition will remove all structures, roads, utility lines, piping, and fences installed on the property for operation of the EMT (Figure 2-4). The potable water line to the site and the paved perimeter road that connects the site to Storke Road will be retained at the request of UCSB. Within the separate easement for the loading line, the line will be removed to a depth of -15 Feet Sea Water (FSW) from Mean Lower Low Water (MLLW), ensuring that the remaining portion of the line would not be exposed at low tide. From that point, the offshore portion of the loading line will remain abandoned in place. Following demolition, disturbed portions of the site will be graded to approximate natural contours and create wetland habitat areas, and the site will be revegetated with native species.

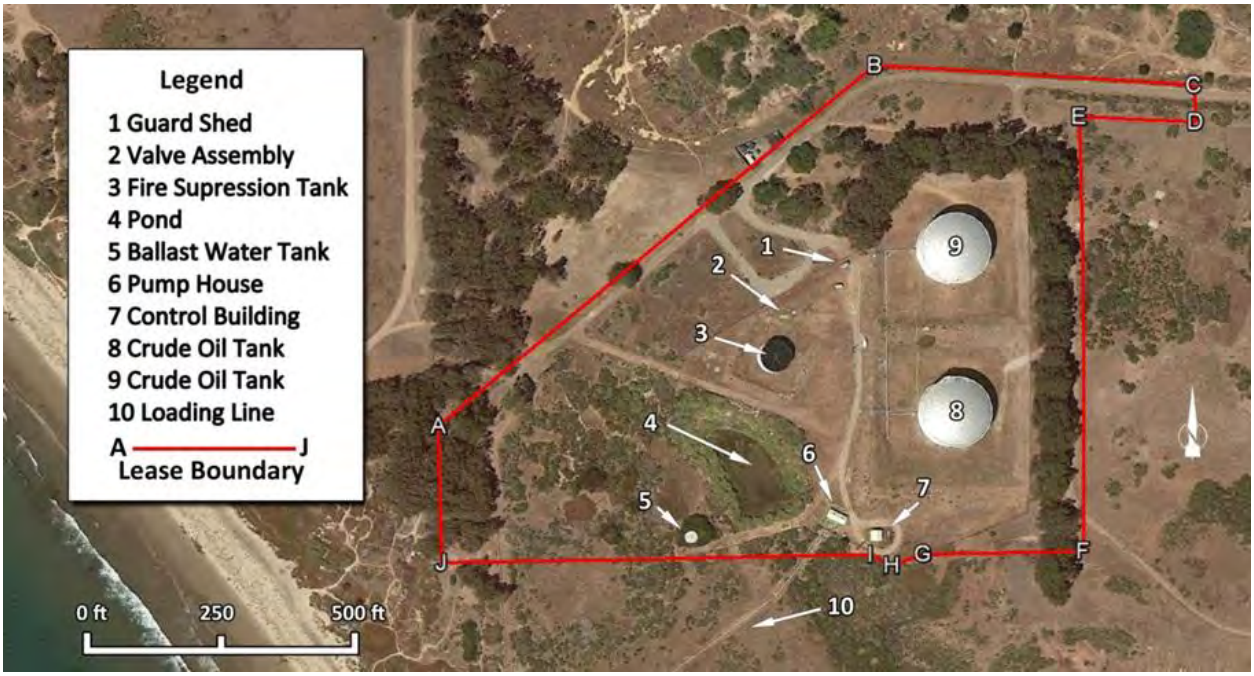

Figure 2-4. EMT lease boundary, major structures, and loading line.

2.3 Existing Conditions on the EMT Site

As documented in the 2014 EMT BA, the site is dominated by annual grasslands, with coastal scrub, ruderal, and wetland areas also present. A dense eucalyptus windrow is present along the eastern site boundary. Facilities in the fenced portion of the EMT consist of storage tanks situated within earthen containment berms, a pump station and control building, a ballast water pond, and associated pipelines and roadways. Recent surveys have delineated wetlands

(KMA, 2014) and southern tarplant populations (BA, 2014) present within the three storage tank containment areas.

Areas outside the fence include paved roadways, the aboveground Loading Line extending to the southwest across the COPR to the beach, and a buried pipeline (Line 96) extending west across the UCSB South Parcel to City of Goleta open space. The fenced portion of the EMT site has been affected by oil- and gas-related activities, including annual mowing or weed-whipping to reduce fire hazard. The unfenced portions of the site are open to the public, and were not mowed, and as a result continue to support elements of native habitats, consisting primarily of coastal scrub.

Soils on the majority of the site are mapped as Concepcion fine sandy loam, 0-2% slopes, with small areas of Concepcion fine sandy loam, 2-9% slopes, eroded, present at the northeast and southeast corners of the fenced area, and Concepcion fine sandy loam, 15-30% slopes, eroded, present in the southwest portion.

3. RESTORATION PROJECT DESCRIPTION

For the purposes of restoration, the EMT Lease is divided into three areas:

1. The approximate 10.3-acre Grading Area, which will require seeding, and select planting with plugs and liner/container plants, following grading.

2. The approximate 7.2-acre Lease Area beyond the Grading Plan Area, where invasive weeds and soil seed banks will be removed, followed by a "grow-and-kill" cycle to eliminate weeds in the seed bank. Following soil treatment the cleared areas will be seeded and/or planted with native species.

3. The approximate 1.55-acre Loading Line area that is not a part of the lease is governed by an easement agreement and is part of the D&R Permit Application. This area will be minimally disturbed during removal of the loading line, and will be included in the overall restoration effort.

3.1 Restoration Objectives and Rationale

The EMT Lease agreement obligates Venoco to leave the EMT site in a condition that is comparable to the surrounding lands. The surrounding lands continue to reflect past land uses, but are currently undergoing habitat restoration efforts. Venoco assumes that the restored EMT site will be open to the public and accessible to wildlife, as is the nearby Sperling Reserve and most of the adjacent land owned by UCSB. Access to the sensitive COPR Devereux Slough area, however, is carefully managed, and this restoration and monitoring plan includes "green fence" plantings to discourage passage through the eucalyptus windrow on the eastern boundary.

3.1.1 Objectives

The objectives of this restoration and monitoring plan are to return site contours to natural conditions, preserve and enhance existing wetland areas as feasible, create new wetlands, remove invasive species, reduce the invasive weed seed bank, promote growth of southern tarplant, and establish a dominant cover of annual and perennial native vegetation using salvaged native plants and locally collected seed, supplemented by native plantings. Restoration objectives have been designed around the need to preserve existing wetlands where feasible based on natural site features, and creation and enhancement of additional wetland features as mitigation for necessary impacts. To help accomplish these objectives, the proposed plant palette includes a wide variety of species to increase biodiversity, match restored site contours, and provide flexibility and adaptive management of the restoration effort during the vegetation establishment period. Success criteria have been established, and monitoring methods and schedules are specified.

3.1.2 Rationale

The project grading plan as developed in collaboration with CCBER and COPR staff, provides the basis or foundation for the restoration strategy. The planting zones and specific plant palettes proposed are based on existing and proposed site contours and hydrologic conditions, and on surrounding habitat conditions. Plant species proposed for the site are both suitable for the conditions in their respective zones, and are robust plants that given appropriate environmental conditions grow quickly and can establish dominance over areas where non-native species have been removed. Proposed seeding and planting methods are consistent with

ongoing restoration projects in the area, and are suitable for the planting areas and site conditions once the decommissioning work is complete.

The delineated wetland areas in the tank containment areas currently survive and provide limited wetland function and value while receiving direct precipitation and detained runoff from a limited watershed as their primary water source. The proposed grading plan will increase the watershed feeding the onsite created vernal pool complex to form an interconnected vernal pool assemblage that comingles with adjacent vernal pool areas on the South Parcel.

The ballast water pond wetland fringe area will be increased in size by "laying back" the banks to a more gentle topography and removing the extensive pampas grass (*Cortaderia jubata*) infestation. In addition, grading in surrounding areas will direct additional runoff into the pond and its associated drainage feature, resulting in a more natural connection into the riparian scrub habitat proposed in the downstream channel. Direct rainfall is expected to be sufficient to support native plant species within the preserved and created wetland and riparian areas through a normal rainfall year once established. Initial weed abatement efforts and site maintenance will be critical to the development of the proposed habitat types, and over time, the proposed plant palette is expected to compete successfully against non-native species with minimal maintenance input.

Based on the KMA Wetland Delineation, the project as proposed will impact coastal wetland habitat, and the restoration plan has been developed to provide a minimum mitigation ratio of 4:1 (habitat created and enhanced to habitat impacted). Table 3-1 below provides a breakdown of wetland habitat types impacted, created and enhanced on the project site.

Table 3.1. Wetland Impact and Mitigation Summary

Habitat Type	Impacted (acres)	Created (acres)	Enhanced (acres)	As-built total (acres)
Vernal Pool (seasonal wetland)	0.56	1.53	0.18	1.71
Ballast Pond Wetland (coastal freshwater marsh)	0	0.41	0.20	0.61
Ballast Pond Open Water	0	0	0.10	0.10
Riparian Scrub	0	0.17	0.003	0.17
TOTAL	**0.56**	**2.11**	**0.48**	**2.59**

4. RESTORATION PLAN IMPLEMENTATION

The restoration planting sites shall be prepared, seeded, planted, and protected using the methods described below, in the BA, and in the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project.

4.1 General Methods

4.1.1 Protection During Construction

Protective measures to be implemented prior to and during construction are listed below.

- A qualified restoration ecologist shall be present as needed during the construction phase of the project to direct and document grading activities within the restoration areas.
- Contractor shall fence restoration area boundaries with highly visible fencing or appropriate staking prior to start of grading, in accordance with project plans.
- Contractor shall implement an effective combination of erosion and sedimentation control measures outside the restoration area boundaries prior to start of grading, and maintain those measures during construction to prevent sedimentation of on-site and adjacent wetland areas.
- No construction materials, debris, or waste shall be placed or stored where it may enter sensitive habitat including wetlands, storm drain, receiving waters, or be subject to wind erosion and dispersion.
- Contractor shall use the appropriate sized earth-moving equipment feasible during grading so as to minimize soil compaction.
- Contractor shall avoid grading during or following rain events, or when soil is wet enough to stick to equipment tires or tracks.
- Contractor shall stockpile any suitable topsoil removed by grading from wetland areas for use during restoration efforts under the direction of the restoration ecologist.

4.1.2 Surface Preparation

Surface preparation is necessary on graded areas to provide a rough and uneven soil surface that will provide a rough seedbed for establishing vegetative cover. A grow-and-kill cycle following grading should be implemented as needed and determined by the restoration ecologist to remove weed seed banks in the soil prior to seeding and planting activities. These preparatory actions should be completed in fall or early spring, immediately prior to seeding and planting efforts. Surface preparation and grow-and-kill cycle details are described below.

- Areas containing significant cover of invasive weeds shall be scraped to a depth of two (2) inches, and all scraped material shall be removed from the project area.
- Following scraping, the top 10-12 inches of soil shall be removed from suitable wetland areas where plant material is to be salvaged, and stockpiled for replacement at final grade. Care shall be taken to ensure salvaged plant material is not covered with too much soil as to kill it. Replaced soil shall be lightly compacted by track walking or sheeps-foot roller.
- All final grade areas should have soil surfaces lightly roughened and loosened to a depth of one to two (1-2) inches (tilling or raking), or by leaving slopes in a roughened condition after grading with tracked equipment prior to seeding/planting.

- Following final grading, all areas to be planted shall be watered repeatedly to stimulate germination of existing weed seeds. Sprouted weeds should be disked, covered with black plastic, sprayed with herbicide or removed by hand to conclude a grow-and-kill cycle prior to seeding/planting on the site.
- All herbicide applications shall be performed by an individual in possession of a Qualified Applicators License and with experience managing exotic species in sensitive habitats.
- Preserved wetland areas shall be weeded by hand to remove exotic species and reduce competition for native species.

4.1.3 Erosion Control

Erosion and sedimentation have potential to impact the site and the success of the restoration effort. The SWPPP must be properly implemented and regularly monitored and maintained to reduce potential impacts. The following measures should be included in erosion control requirements for the site.

An effective combination of erosion and sedimentation control measures should be installed prior to start of grading, and maintenance of those measures should be conducted on a daily basis to prevent sedimentation of on-site and adjacent wetland areas. Measures may include use of straw wattles, silt fence, jute netting, mulch, sand or gravel bags, and temporary detention basins as needed to control sedimentation and erosion on the site. All materials used shall be biodegradable; measures incorporating plastic mesh that could detrimental to wildlife will not be allowed.

At minimum, graded slopes (5:1 or steeper) within or adjacent to wetland planting areas should be protected by installation of jute netting. Suitable erosion and sedimentation control measures should be maintained on-site until plant cover is sufficiently dense to protect the soil from erosion.

4.1.4 Plant Materials

Plant materials used in the restoration effort will be obtained through local seed collection from the UCSB property, salvage of plants within the project site, and propagation of seed and propagules from the immediate vicinity. Species and quantities seeded and planted are expected to be variable due to the size limitations of the Coal Oil Point/Ellwood collection area, and the environmental variables associated with collection and propagation of native plant materials. As a result, seed collection may be augmented by native seed purchased from local providers if suitable materials are available. Due to the environmental factors associated with seed collection and propagation, specific plant counts or quantities for each species to be installed onsite are not provided. Instead, the Plan identifies zones or seeding/planting areas and provides an approximate quantity of seed, propagules and container plant material proposed for use in each zone. Also provided are installation guidelines for container plants to ensure sufficient space is provided to shrubs and trees that will be installed onsite over time.

The anticipated pounds of seed and numbers of container plants specified are listed in the habitat zones discussed below. Final container plant numbers and spacing will be determined by the restoration ecologist during implementation, based on final site contours and success of native seed collection and propagation efforts, and industry standards. Restoration planting should be done in accordance with the methods described in the plan. The optimal period for restoration planting is late fall/early winter once winter rains have moistened the top six (6) inches of the soil profile. However, planting container stock can occur at any time if irrigation is available.

4.2 Planting Plan and Plant Palette

The conceptual approach for restoring the EMT site is to enhance existing habitats through removing exotic species, creating the appropriate post-grading hydrology to support existing wetlands and created wetland/vernal pool areas, and seeding and planting native species to initiate plant community development and "push" ecological succession in the desired direction. The Plan addresses the following habitat types that correspond to the zones shown on the attached Planting Plan, which include: Wetland, Vernal Pool, Riparian Scrub, Native Grassland, Coast Live Oak, Coastal Scrub/Grassland Matrix, and Coastal Bluff Scrub. Some areas will contain a mixture of Coastal Scrub and Native Grassland plant palettes. In addition, since UCSB's Long Range Development Plan policies require incremental rather than complete removal of eucalyptus trees, areas under the existing eucalyptus windrow will be planted with native shrubs that can tolerate the associated shade and allelopathic conditions, such as lemonadeberry (*Rhus integrifolia*). These plantings along the eastern boundary of the Lease will also serve as a "green fence" diverting foot traffic away from the sensitive Devereux Slough areas of COPR.

The plant palette for each habitat type is based on differences in elevation, water availability, species requirements, and maintenance needs. Many of the species listed are suitable for use in more than one area, and can be substituted where appropriate as determined by the contractor. For example, coastal scrub and annual grassland areas are mixed together in the southern portions of the site, and planting/seeding will use species from both habitat types to restore and enhance those areas. Use of additional species, total plant numbers and seed amounts, plant spacing, and exact boundaries of planting zones will be determined during implementation, based on final site contours, as-built conditions and acreages, observed inundation levels, amount of salvaged plant material available, and success of native plant seed collection and propagation efforts.

The plant palettes and approximate plant numbers and seed amounts are presented below, and correspond to the areas shown on the Planting Plan.

4.2.1 Ballast Pond Wetland (Coastal Freshwater Marsh)

The pond edges above and below spill height will be the wettest area on the site, and will support a variety of native plants adapted to permanently wet conditions or saturated soils. The wetland area planting mix should include the following perennial native wetland species to take advantage of the varying ponding levels and saturated soil conditions.

Anemopsis californica	Yerba Mansa
Baccharis salicifolia	Mulefat
Distichlis spicata	Saltgrass
Eleocharis macrostachya	Common spikerush
Juncus acutus	Spiny Rush
Juncus mexicanus	Mexican rush
Juncus phaeocephalus	Brown-headed rush
Juncus textilis	Basket rush
Schoenoplectus americanus	Olney's three-square bulrush
Schoenoplectus californicus	California bulrush
Schoenoplectus pungens	Common Three-square bulrush
Scirpus microcarpus	Small-fruited bulrush

This area covers 18,101 square feet (0.41 acre), and will be planted with salvaged material from the site, and collected and propagated plant materials from the region. Initial planting should

consist of approximately 3,000 cuttings/propagules, salvaged or propagated plants installed in an irregular pattern as determined by the restoration ecologist.

4.2.2 Vernal Pool Complex (Seasonal Wetland)

The proposed created vernal pool complex is expected to be seasonally wet, with rainfall and runoff from a relatively small watershed as the primary water source. They will include areas of suitable habitat for southern tarplant. Planting methods will include broadcast seeding methods and installation of salvaged plant material. Installation would occur following raking to create a suitable seed bed/planting surface, placement of seed bank inoculum, rolling with a sod roller, and watering. The plant palette for this zone includes the following species:

Alopecurus saccatus	*Pacific Foxtail*
Brodiaea jolonensis	*Dwarf Brodiaea*
Castilleja densiflora	*Owl's Clover*
Centromadia parryi ssp*. australis*	*Southern Tarplant*
Centunculus minimus	False Pimpernel
Crassula aquatica	*Water Pygmy Weed*
Elatine brachysperma	*Short-seeded Waterwort*
Eleocharis acicularis	*Needle Spikerush*
Eleocharis macrostachya	*Common Spikerush*
Eryngium armatum	*Prickly Coyote Thistle*
Eryngium vaseyi	*Vasey's Coyote Thistle*
Grindelia camporum	*Gum Plant*
Hordeum brachyantherum ssp. brachyantherum	*Meadow Barley*
Juncus occidentalis	*Yard Rush*
Phalaris lemmonii	*Lemmon's Canary Grass*
Plagiobothrys undulatus	*Popcorn Flower*
Psilocarpus brevissimus	*Dwarf Woolly-heads*

Created vernal pool complex is expected to cover approximately 66,559 square feet (1.53 acre) in addition to a preserved wetland area covering approximately 0.18 acre. Initial restoration efforts will require an estimated 80 gallons of inoculum, and 5,000 plugs, seedlings or salvaged material to augment seed bank growth. Broadcast seeding will be used as appropriate over time as seed becomes available to fill areas of poor germination and mortality.

4.2.3 Native Grassland

Graded areas within the grassland zone on the Planting Plan will be seeded/planted and then mulched with a weed-free material. Native species include but are not limited to the following:

Castilleja exserta	Owl's Clover
Corethrogyne filaginifolia	California Aster
Distichlis spicata	Saltgrass
Eschscholzia californica (local coastal form)	California Poppy
Hordeum brachyantherum ssp. brachyantherum	*Meadow Barley*
Leymus triticoides	Alkali Ryegrass
Lupinus bicolor (local form)	Miniature Lupine
Sisyrinchium bellum	Blue-eyed Grass
Stipa pulchra	Purple Needlegrass

Existing grassland areas will be selectively weeded on an annual basis to remove non-native species. Seasonally timed mowing or weed-eating and hand-pulling will be the primary methods. Disturbed areas, and interstitial areas in coastal scrub dominated by non-native species will be included in this treatment. Following sufficient suppression of non-natives as determined by the restoration ecologist, the area will be seeded with native species.

The graded area covers approximately 158,122 square feet (3.63 acres), and will be primarily seeded post construction with available material from site specific seed collection. The goal will be to apply as much seed over the graded area as available. Over time, propagated plants such as purple needlegrass plugs will be installed in select areas as determined by the restoration ecologist to adequately revegetate this area. Ongoing seed collection efforts will also provide supplemental seed to be applied by hand in areas with low vegetative cover. Given the size of the graded areas, it is estimated that approximately 20,000 plugs may be required for the initial restoration effort.

4.2.4 Coastal Scrub/ Grassland Matrix

Upper pond banks and other graded areas will be seeded and planted with native species. Existing coastal scrub areas will be enhanced through removal of exotics, and subsequent seeding and planting suitable native species in areas disturbed by weed removal. This zone will include islands of coastal scrub and native grasslands to provide a mosaic of the two habitats that reflects existing conditions in adjacent areas. The list below provides coastal scrub species to be used in conjunction with the Native Grassland species listed above.

Artemisia californica	California Sagebrush
Atriplex lentiformis	Quail bush
Baccharis pilularis	Coyote Brush
Encelia californica	California Sunflower
Elymus glaucus	Blue Wildrye
Epilobium canum	California Fuchsia
Eriogonum parvifolium	Coastal buckwheat
Hazardia squarrosa	Prickly Goldenbush
Isocoma menziesii	Coastal Goldenbush
Leymus condensatus	Giant ryegrass
Lotus scoparius	Deerweed
Mimulus aurantiacus	Bush Monkey Flower
Scrophularia californica	California Figwort

This area covers approximately 408,157 square feet (9.37 acres), and includes both graded areas and undisturbed areas of the site. Graded areas will be seeded initially with locally-collected seed. An estimate of seed volume is approximately 10 pounds for this zone. As material becomes available in subsequent years, propagated plants will also be installed as plugs and various container sizes in areas identified by the restoration ecologist to adequately revegetate this area. Initial restoration will install approximately 12,500 plants in select locations as determined by the restoration ecologist to cover this area. Undisturbed zones will have weed abatement and supplemental planting at a future date.

4.2.5 Riparian Scrub

This area may be seasonally inundated, but ponding is not expected to occur. Work in this area will consist of select contour grading, removal of exotic species and accumulated debris, and seeding/planting native vine, shrub, and tree species to create riparian scrub understory and canopy cover layers. The following species may be used:

Artemisia douglasiana	Mugwort
Artemisia californica	California sagebrush
Baccharis pilularis	Coyote Brush
Baccharis salicifolia	Mulefat
Equisetum arvense	Horsetail
Heteromeles arbutifolia	Toyon
Juncus patens	Indian Rush
Juncus xiphoides	Iris-leaved Rush
Keckiella cordifolia	Heart-leaved penstemon
Leymus condensatus	Giant Rye
Leymus triticoides	Alkali Rye
Lonicera subspicata var. *subspicata*	Santa Barbara Honeysuckle
Lotus scoparius	Deerweed
Marah macrocarpus	Man-Root
Mimulus aurantiacus	Bush monkey flower
Platanus racemosa	Western sycamore
Quercus agrifolia	Coast live oak
Ribes speciosum	Fuchsia-flowered Gooseberry
Rosa californica	California Rose
Rubus ursinus	California Blackberry
Rhamnus californica	Coffeeberry
Rhus integrifolia	Lemonade berry
Salix lasiolepis	Arroyo Willow
Sambucus mexicana	Blue Elderberry
Symphoricarpos mollis	Creeping Snowberry
Venegasia carpesioides	Canyon Sunflower

This area covers approximately 7,405 square feet (0.17 acre), and will be planted with locally-collected plant materials. The goal will be to use locally-collected seed and cuttings/propagules and salvaged plant material during the initial restoration effort. Rhizomes and root divisions will also be installed as determined appropriate by the restoration ecologist. As the seed collection effort continues and additional propagules and container plants are available, container stock will be installed in “holes” to create the proposed riparian scrub habitat. Initial restoration work will use 250 willow cuttings and supplemented by acorn planting and salvaged material from the site.

4.2.6 Coastal Bluff Scrub

Restoration of coastal bluff scrub will occur in bare areas where iceplant has been removed along the bluff portion of the Loading Line.

Atriplex lentiformis ssp. *breweri*	Brewer’s saltbush
Baccharis pilularis	Coyote Brush
Corethrogyne filaginifolia	California Aster
Erigeron glaucus	Seaside Daisy

Eriogonum parvifolium	Coastal Buckwheat
Eriophyllum staechadifolium	Coastal Yarrow
Encelia californica	Encelia
Eschscholzia californica (local coastal form)	California Poppy
Hazardia squarrosa	Prickly Goldenbush
Isocoma menziesii	Coastal Goldenbush
Rhus integrifolia	Lemonade berry

This area covers 12,197 square feet (0.28 acre), and will be seeded initially and then propagated container stock (approximately 500 plants) will be installed once material is available. Soil stabilization will be important in this area while seed becomes available. A weed-free rice straw or other material approved by the restoration ecologist will be used to cover seeding areas and surrounding plants to promote establishment.

4.2.7 Coast Live Oak

Coast live oak plantings will be installed along the northern portion of the site, adjacent to grassland habitat and the eucalyptus windrow. Oak acorns will be collected from local trees in the fall, and acorns should be taken from the tree rather than from the ground where possible. Collected acorns should be processed immediately by removing the caps, and checking for viability using the float test; sinkers should be discarded. Viable acorns should be cold stratified in a refrigerator for at least one month before planting. Soil at each oak planting location should be loosened to a depth of four (4) inches over a 24-inch circle, and three (3) acorns should be placed on their sides at a depth of three (3) inches and covered with soil. A one-inch layer of weed free mulch should be placed over each planting location, and each area should then be watered thoroughly and caged using an approved caging method as determined by the restoration ecologist. Existing coyote brush shrubs may also be used as a nursery site for acorn plantings to shade young trees and provide herbivore protection during the establishment period.

This area covers approximately 43,560 square feet (one acre), and will have select areas planted with oak acorns, along with native grassland and coastal scrub species. Oak acorn plantings will be over planted initially to account for mortality, and the planting effort will be dependent on the availability of acorns. An estimated 500 viable acorns will be needed to restore this area assuming young trees will be thinned over time to provide natural setting typical of other coast live oak habitat in the region. As the restoration program progresses, container stock from locally collected and propagated acorns may also be available and installed as feasible under the direction of the restoration ecologist.

4.2.8 Eucalyptus Understory Planting Zone

areas under the existing eucalyptus windrow will be planted with native shrubs that can tolerate the associated shade and allelopathic conditions, such as lemonadeberry (*Rhus integrifolia*). These plantings along the eastern boundary of the Lease will also serve as a “green fence” diverting foot traffic away from the sensitive Devereux Slough areas of COPR. An estimated 500 lemonadeberry shrubs will be irregularly installed along the outer dripline of the eucalyptus windrows along each side of the site. This area totals approximately 89,734 square feet (2.06 acres).

4.3 Implementation Methods

4.3.1 Seeding Methods

Seeding with native species will occur in graded areas, and as needed in ungraded grassland, coastal scrub and riparian scrub areas. All seed shall be locally collected materials from UCSB of the immediately surrounding area. Seed mix species and quantities are expected to be variable due to the size limitations of the UCSB Coal Oil Point/Ellwood collection area, and seasonal availability due to environmental factors during the collection process. The target seed collection amounts are listed in the planting zone text for each habitat type zone that will be seeded. Seeding shall be conducted in late fall/early winter to utilize seasonal rainfall for natural germination. Supplemental irrigation will be utilized as feasible and determined appropriate by the restoration ecologist.

Broadcast Seeding

Broadcast seeding will occur in graded areas, upland areas where exotic species have been removed, and around planted materials to provide the target cover of the respective habitat type. Following application, seed will be lightly raked into the soil surface or otherwise covered with soil or a weed free mulch to minimize losses by predation.

Hydroseeding

Hydroseeding may be necessary to help stabilize bare soils post grading, and promote growth of native species on graded areas of the site. Hydroseeding, if approved for this project, shall be done once all earthwork and erosion control installation is complete, which is anticipated to be in late October, November or December. The timing of the application of hydroseed is critical and the goal of this task is to apply seed at the beginning of the rainy season for optimal seed germination. Hydroseed may be applied over jute netting and fiber rolls, but shall not be applied to dead or dried plant material unless decomposition has sufficiently occurred to allow adequate soil contact by the hydroseed slurry. Mixing time for hydroseed applications should not exceed one (1) hour from the time the native seed contacts the water until the entire batch is discharged onto the site. Seed amounts, tackifiers, and fiber mulch specifications shall be determined during the restoration process based on habitat type, seed availability, and slope, once a need for hydroseeding is identified. Mychorizae may also be added to the hydroseed slurry to promote plant establishment.

Southern Tarplant Seeding

At least one pound of tarplant seedheads should be collected during late summer months from existing populations on UCSB lands. Soil seed bank materials will be salvaged from dense southern tarplant populations on portions of the site that will be graded. Collected tarplant seedheads should be placed in a bucket and lightly crushed with a wooden mallet or board to release individual seeds. The entire crushed seedhead mass should be broadcast over suitable vernal pool and adjacent grassland areas after surface preparation and soil seed bank placement is completed. Seed may also be collected and grown in a nursery setting to increase the amount of plant material available for installation in the restoration site.

Seasonal Wetland/Vernal Pool Inoculum Collection and Placement

Vernal pool inoculum (topsoil containing seeds, spores, bulbs, and other propagules) shall be salvaged from wetland areas that will be filled during grading. Hand tools (i.e., rakes and shovels) will be used to rake dry duff (dead plant material) and topsoil from the donor pools. Inoculum from different donor pools can be mixed if necessary to provide sufficient material for

the project. If necessary, the materials collected from donor pools may be stored with adequate ventilation and out of direct sunlight, at an appropriate location.

4.3.2 Planting Methods

Restoration planting will occur primarily in fall and winter months when soil moisture is present within the expected rooting zone. Temporary irrigation may be required to adequately water recently planted materials and provide supplemental watering during the initial establishment period, which is anticipated to be through the first year. Seed and container stock shall be installed as described in the plan and per the planting zones shown on the attached Planting Plan. All restoration plant materials (i.e.: seed, cuttings, rhizomes, root divisions, etc.) shall be from locally collected plants from UCSB or the immediate area as determined appropriate by the restoration ecologist in concert with other project members.

Recommended Planting Procedure for Container Plants

Container stock shall be propagated under direct oversight of the restoration ecologist and shall consist of symmetrical, typical for variety and species, sound, healthy, vigorous plants free from insect pests or eggs. The container stock shall have healthy, normal root systems; well filling their containers but not to the point of being root bound. Plants shall not be pruned prior to installation. The majority of containers anticipated to be installed on the site would be from plugs or liners. All plants installed from containers of one gallon or larger will likely require supplemental irrigation. The irrigation program should be in place immediately following plant installation. The long-term objective is to encourage deep root development and gradual weaning from dependence on supplemental water. Irrigation may be required for up to two rainy seasons following planting, but it is expected that supplemental watering during the first year will be sufficient for successful plant establishment. The following provides the general guidelines for container plant installation:

- Prior to planting, the area within three feet of each proposed plant site shall be cleared of all weed plants. Avoid disturbing native plants/seedlings in the cleared area.
- All planting holes shall be dug by hand to equal the depth and 1-1/2 times the width of the rootball.
- Planting holes shall be randomly arranged or clumped; plants should not be placed in symmetrical patterns or rows.
- Each plant shall be planted in the center of the pit, and backfilled with native material. Rootballs should not be disturbed when planting.
- After the backfill soil has been well firmed around the rootball and has been watered, the crown of the rootball shall be at or above the surrounding finish grade or, on slopes, an elevation equal to the slope elevation at the lower edge of the plant pit.
- A low berm shall be constructed of native soil around all new container plantings to assist in retaining water around the root zone (a “water well”). The berm shall be no higher than 3 inches in height.
- A water source must be in place to permit routine watering immediately following planting to promote plant growth and root development.

Recommended Planting Procedure for Plugs and Liners

- Prior to planting, an area one foot in diameter around each proposed plant site shall be cleared of all weed plants.
- All planting holes shall be dug by hand to at least twice the depth of the visible root

areas and to be at least 12-inches in diameter.
- Planting holes shall be randomly arranged; plants should not be placed in symmetrical patterns or rows.
- Each plant shall be planted in the center of the pit, and backfilled firmly with native topsoil from the site.
- After the native soil has been well firmed around the root area and has been watered, the crown of the root area shall be at or above the surrounding finish grade or, on slopes, an elevation equal to the slope elevation at the lower edge of the plant pit.
- Planting shall result in a small depression (a "water well") around each plant to assist in retaining water around the root zone.

4.3.3 Invasive Species Removal

All pampas grass individuals surrounding the pond margin shall be removed during grading activities. Patchy occurrences of pampas grass in scrub habitat away from the pond will be removed by hand, mechanical and chemical methods. Preferred effective methods for removal have been devised through experimentation and the following are recommended by the California Invasive Plant Council (2014).

- For both pampas grass *(Cortaderia selloana)* and jubata grass *(C. jubata)* mechanical removal is preferable to herbicide use during the dry season when water is not present or at its lowest point, particularly around the ballast water pond, or for plants within 25 feet of the drainage swale that runs southeast across the lease and drains to the back dune pond.
- According to Cal-IPC, cutting and burning flower stalks on site is a good way to avoid inadvertently distributing seeds as stalks are removed. Removal of the flower stalks and leaves will reveal the root-crown.
- Removal of or killing the root-crown and upper roots is the critical treatment; care will be exercised to ensure no untreated roots or tillers are left in the soil, because they can sprout.
- Pampas grass seeds need light to germinate. Cal-IPC recommends seeding heavily on areas where plants were removed to create an unfavorable environment for pampas grass seed germination and seedling survival. They also comment that seeds are not long-lived in the soil.
- Follow-up inspections and subsequent removal of pampas grass individuals will continue for a minimum of three years and extend through five years if needed.
- Herbicide application approved for use near aquatic habitats may be used (e.g., Aqua Master or Roundup Custom formerly called Rodeo) (See below). Late season treatments are likely to be more effective than early season treatments.

Pampas grass removal will be implemented on the entire lease site. The areas with dense pampas grass will be removed using methods recommended by the California Invasive Plant Council (Cal-IPC 2012), and described under Section 2.2.3, above.

Methods recommended by Cal-IPC (2014) for Harding grass (*Phalaris aquatica*) removal are similar:

> *"Seedlings will establish successfully only if there is minimal competition. Although Harding grass is an aggressive competitor once established, it has weak growth as a seedling. Harding grass can tolerate some shade but prefers open ground. […]"*

"Mowing: Kay (1969) observed that close mowing or clipping late in the growing season can greatly reduce the vigor of Harding grass. Mowing should be done when plants are still green but seasonal soil moisture is almost exhausted. […]"

"Mowing and irrigation can be used to stimulate new growth of Harding grass. New growth can then be treated with glyphosate or fluazifop, resulting in high mortality. Grazing can be used in place of mowing, but in either case, at least ten to twelve inches (25-30 cm) of regrowth is needed before an herbicide application."

Iceplant (*Carpobrotus* spp.) will be removed from the entire lease property.

- Cal-IPC (2014) recommends mechanical or hand removal. Follow-up to remove any plants that were missed will occur within a month.
- Herbicide treatment on discrete patches using 2% glyphosate is more successful than solarization, according to Cal-IPC. The dead material can be left in place to break down into a mulch that will inhibit seed germination.
- Follow-up inspections and seedling will occur at least three times a year for the first three years, and twice a year for the fourth and fifth years.
- The plants will be disposed of in such a manner that they will not be able to root or otherwise become established.

4.3.4 Herbicide Use

Herbicide approved for use adjacent to open water (Rodeo® or AquaMaster® with approved surfactant [2% LI-700® or AgriDex®, may be used under the following conditions:

1. The manufacturer's directions are strictly followed.
2. No herbicide may be applied within 48 hours prior to a forecast rain event, nor within 72 hours following rainfall.
3. The wind speed is less than 5 mph.
4. A licensed applicator familiar with native plants is contracted to mix and apply the herbicide.

4.4 Maintenance Methods

The site shall be inspected regularly following initial seeding and planting, and during and after each major storm event to assess erosion potentials. Ponding levels in vernal pools and the ballast pond shall be monitored closely during the first winter following implementation, and any problems identified shall be remedied under the direction of the restoration ecologist immediately. Areas damaged by erosion, rodents, vehicles or other causes shall be repaired as soon as possible using effective biotechnical erosion controls. General maintenance activities necessary to ensure that the project objectives are achieved include:

- regular removal of invasive or exotic plants before seed is set;
- immediate revegetation of areas where damage has occurred or plant cover deficiencies are identified;
- application of temporary/supplemental irrigation as appropriate for prevailing weather conditions;
- inspection and repair of irrigation systems;
- regular removal of trash and debris;

- annual weedwhacking and removal of cuttings in vernal pool areas to simulate grazing;
- repair of erosion or vandalism damage; and,
- repairs to fencing and signage as necessary.

5. MONITORING PLAN

Venoco will work with UCSB to monitor the site for five years to ensure success of the restoration effort. Monitoring shall document overall site conditions and restoration success according to the following performance standards, success criteria, and monitoring schedules. Monitoring efforts will note species diversity, estimations of ground cover of vegetation, vegetative cover of dominant species, wildlife usage, hydrology, and presence and abundance of special status species or other individual "target" species within the restoration areas. UCSB (CCBER) and Venoco will ensure the restoration ecologist is present during the grading phase of the project to direct and document activities necessary for successful restoration. Duties include directing protective fencing installation, monitoring grading activities and assisting with fine-tune grading of depression areas and swales, conducting plant salvage efforts, and resolving any inconsistencies with design and site conditions.

5.1 Performance Criteria (Five-Year Goals)

Specific annual performance standards for native plant cover, plant vigor, and non-native plant cover are presented below, and will be assessed during each monitoring visit. Achievement of the success criteria will indicate that the site has developed into a self-sustaining pattern that should continue over the long term with minimal maintenance inputs. Final success will be indicated by establishment of stable natural habitat conditions that exhibit vigorous natural reproduction of native plant species, and are visibly more diverse and contain significantly fewer exotic species than un-restored habitats in the area. To be successful, restored areas must meet or exceed these values.

Table 5.1. Performance Standards

Performance Standards	Year 1	Year 2	Year 3	Year 4	Year 5
Total Percent of Native Cover Present	25%	35%	50%	60%	70%
Average Plant Vigor Rating of Containers*	2	2	2	2	2
Percent of Non-Native Cover	25%	20%	15%	10%	10%

*****Plant vigor will be measured as follows:

- 1 = excellent – vigorous healthy plant (no necrotic or chlorotic leaves)
- 2 = good – plant healthy with limited signs of vigorous growth
- 3 = adequate – plant healthy, but with no signs of vigorous growth, and some necrosis or other damage present
- 4 = poor – low vitality, or main stem dead but basal sprouts emerging
- 5 = dead – no evidence of recovery

In addition to the specific criteria listed in the above table, the following general standards will also be assessed for each habitat type to be restored:

5.1.1 Vernal Pool Areas

Preserved wetlands and created vernal pool areas shall maintain hydrologic function and be dominated by perennial and seasonal wetland plant species. These areas must continue to meet the California Coastal Commission one-parameter definition of wetland habitat, and should exhibit evidence of native plant recruitment and wildlife usage.

5.1.2 Ballast Water Pond Wetlands

Preserved and created coastal freshwater marsh areas around the edge of the pond shall maintain hydrologic function and be dominated by perennial wetland plant species. No pampas grass or other invasive species presence shall occur after year three.

5.1.3 Native Grassland Areas

Native grassland areas shall maintain a dominant cover of native grass and annual forb species, with exotic weed percentages constituting no more than 10 percent of the total plant coverage by the end of the fifth monitoring year. These areas should exhibit evidence of native plant recruitment and wildlife usage.

No invasive species, including pampas grass, Harding grass, fennel, and iceplant will be allowed on the restored site.

5.1.4 Coastal Scrub/Grassland Matrix and Coastal Bluff Scrub

Scrub areas shall maintain a dominant cover of native plants, with exotic weed percentages constituting no more than 10 percent of the total plant coverage by the end of the fifth monitoring year. These areas should exhibit both native forb and shrub layers, and evidence of native plant recruitment and wildlife usage.

5.1.5 Riparian Scrub

Riparian areas shall exhibit evidence of seasonal hydrologic function and be dominated by perennial and seasonal plants appropriate to the site. These areas should exhibit both forb and shrub/tree layers, and evidence of native plant recruitment and wildlife usage.

5.1.6 Southern Tarplant

Protective measures for southern tarplant will be implemented as part of grading and site decommissioning. These measures are primarily intended to preserve the seed bank rather than individual plants. A focused survey for tarplant shall be conducted during the peak blooming period as part of the first year monitoring effort. The observed first year tarplant coverage data will then be used as the baseline condition for the restoration sites. This baseline percent cover should remain steady or increase over the five-year monitoring period to show establishment of self-sustaining tarplant populations on the site. Additional seed collection and distribution across the site will support increased coverage of this species overtime.

5.2 Monitoring Schedule

The monitoring schedule for the five-year monitoring program is presented below.

Table 5.2. Monitoring Schedule

YEAR: 2016	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
FIRST YEAR TASKS												
Weeding/Maintenance		X	X	X		X			X			X
Revegetation Monitoring			X			X			X			X
Annual Report												X
YEAR: 2017	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
SECOND YEAR TASKS												
Weeding/Maintenance		X	X	X		X			X			X
Revegetation Monitoring			X			X			X			X
Annual Report												X
YEAR: 2018	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
THIRD YEAR TASKS												
Weeding/Maintenance		X	X	X		X			X			X
Revegetation Monitoring			X			X			X			X
Annual Report												X
YEAR: 2019	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
FOURTH YEAR TASKS												
Weeding/Maintenance		X	X	X		X			X			X
Revegetation Monitoring			X			X			X			X
Annual Report												X
YEAR: 2020	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
FIFTH YEAR TASKS												
Weeding/Maintenance		X	X	X		X			X			X
Revegetation Monitoring			X			X			X			X
Final Report												X

5.3 Field Monitoring And Sampling

Field monitoring efforts will involve collecting and evaluating data for all habitats created or enhanced by implementation of this Plan. Monitoring data collection will consist of the percentage of native and exotic species cover, planted species growth and health, presence of volunteer native species, and a qualitative discussion of observed site conditions. Field monitoring should consist of brief visits timed to coincide with scheduled maintenance activities, and preparation of brief monitoring reports which discuss factors such as cover percentages, weed encroachment, erosion concerns, maintenance techniques, and potential need for remedial mitigation efforts. Methods to be used for field data collection will generally follow Daubenmire et al. (1979) and Bonham (1989), and are as follows:

Transects - Permanent transects will be established in representative vernal pool, wetland, native grassland, scrub, and tarplant habitat areas. The exact quantity and location of transects will be determined in the field by the restoration ecologist. The transects will be placed in selected areas to reflect the varied topography of the restoration areas, and should include variations in topographical features. Transect monitoring will be conducted annually in the appropriate season for each habitat type (e.g. spring for wetland and vernal pool areas and late summer for tarplant and buffer areas). All plant species present along each transect will be identified and counted to provide quantitative species composition data. This information will be used to determine percent cover of native species, tarplant, and weed species.

Qualitative Monitoring – A qualitative overall site assessment will be conducted quarterly, and

will consist of walking the restoration areas, and assessing overall site condition, native cover, weed cover, wetland species cover, tarplant occurrences, problem areas, and maintenance needs.

Photo Documentation - Permanent photo documentation points will be established by the restoration ecologist to characterize the overall restoration site and each transect location. This photographic record will assist in the qualitative assessment of the mitigation effort.

Data Standardization - All data obtained during sampling procedures shall be recorded in the field on standardized data sheets.

5.4 Analysis Of Results

Data obtained during transect analysis and qualitative monitoring observations will be documented in annual reports to be submitted to regulatory agencies involved in the project. Evaluation of these results over the five-year monitoring period will expose any patterns or trends in vegetative condition, and will identify areas and actions needed. Identified problem areas will be addressed through adaptive management analysis to identify suitable remedial action.

5.5 Remedial Actions

The restoration areas shall not be considered successful until they are able to survive without artificial inputs (i.e.: excessive weed abatement, supplemental irrigation, etc.). If remedial actions such as replanting or supplemental watering are required beyond the first two years, then the monitoring program shall be extended for every additional year that such inputs are required.

Identified problem areas such as weed infestations, erosion damage, plant loss, sedimentation or improper ponding levels in the vernal pool, or vandalism, will be corrected as needed through normal maintenance actions. If the site trends indicate that the vegetative success criteria will eventually be established in a longer time frame than anticipated, maintenance and monitoring will continue until success is established. If a total site failure is evident, Venoco will, in consultation with UCSB and the appropriate regulatory agencies, determine what corrective action(s) should be taken, and will implement those action(s) accordingly.

6. REPORTING

An “as built” report documenting site conditions shall be prepared within 30 days of completion of the initial grading, plant and seed bank salvage, seeding and weed removal activities. The report shall describe the field implementation of the restoration plan in narrative and photographs, and report any problems and their resolution. An annual monitoring report shall be prepared by December 31st of each year during the five-year monitoring period. Annual monitoring reports will summarize site conditions and maintenance practices, as documented during regular maintenance and field sampling visits, and will include a discussion of success or failure, based on all collected data. Photo documentation will be included in each annual report.

A final or project completion report shall be prepared at the end of the monitoring period, along with long-term maintenance and management recommendations for the site as appropriate. Venoco will ensure that the annual monitoring reports and the completion report are submitted to all interested agencies.

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ATTACHMENT 1

Ellwood Marine Terminal Decommissioning

Restoration Planting Plan

Kevin Merk Associates LLC
P.O. Box 318
San Luis Obispo, CA 93406

Final Grading Contours
Lease Boundary
Loading Line Easement
Southern Tarplant Seeding
Existing Vernal Pool
Enhanced Pond
Enhanced Wetland
Created Wetland
Created Vernal Pool Complex
Created Riparian Scrub
Eucalyptus Understory Planting
Coast Live Oak Planting
Coastal Scrub Grass Matrix
Coastal Bluff Scrub
Native Grassland

N

0 75 150 300 Feet

PROPOSED TOPOGRAPHY W/NEW PLANTS

ELLWOOD MARINE TERMINAL
SANTA BARBARA COUNTY, CA

C. C. ——
S. D. ——

EMT-9250 | 0

VENOCO, INC

Venoco Inc.
6267 Carpinteria Ave.
Carpinteria, CA

805 745-2100

SCALE AS SHOWN
DATE 6/24/15 DR. ACS CK. ——
DR. APPR. —— ENG. GR. ——
JOB # APPROVED
CONTRACTOR

REVISIONS

REFERENCE DRAWINGS

INITS
SAVEDATE

Appendix B

CalEEMod Printout

emt v2 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	emt v2
Construction Start Date	6/4/2024
Lead Agency	UCSB
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	23.8
Location	34.41662811579182, -119.88198778701548
County	Santa Barbara
City	Unincorporated
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3365
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.8

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	0.00	User Defined Unit	17.0	0.00	0.00	—	—	demolition of existing oil and gas facilities

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.5	13.9	131	121	0.20	5.58	4.69	10.3	5.13	1.64	6.77	—	21,444	21,444	0.89	0.26	2.91	21,547
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.98	2.50	23.5	22.0	0.04	0.99	0.44	1.44	0.91	0.12	1.04	—	3,681	3,681	0.15	0.05	0.27	3,700
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.54	0.46	4.28	4.02	0.01	0.18	0.08	0.26	0.17	0.02	0.19	—	609	609	0.03	0.01	0.04	613

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	10.0	8.41	80.1	74.4	0.11	3.41	—	3.41	3.14	—	3.14	—	11,697	11,697	0.47	0.09	—	11,737
Demolition	—	—	—	—	—	—	0.58	0.58	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.58	2.17	20.6	19.2	0.03	0.88	—	0.88	0.81	—	0.81	—	3,012	3,012	0.12	0.02	—	3,023
Demolition	—	—	—	—	—	—	0.15	0.15	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.40	3.76	3.50	0.01	0.16	—	0.16	0.15	—	0.15	—	499	499	0.02	< 0.005	—	500
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.21	0.15	1.80	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	289	289	0.02	0.01	1.35	294
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.01	0.72	0.25	0.01	0.01	0.12	0.13	0.01	0.03	0.04	—	502	502	0.03	0.08	0.96	527

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.46	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	72.9	72.9	0.01	< 0.005	0.15	74.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.19	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.11	136
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.02	12.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.4	21.4	< 0.005	< 0.005	0.02	22.5

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	6.14	5.16	49.8	44.3	0.08	2.16	—	2.16	1.98	—	1.98	—	8,827	8,827	0.36	0.07	—	8,857
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.59	2.30	< 0.005	0.11	—	0.11	0.10	—	0.10	—	459	459	0.02	< 0.005	—	461
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	76.1	76.1	< 0.005	< 0.005	—	76.3
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.07	0.80	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	128	128	0.01	0.01	0.60	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.55	6.55	< 0.005	< 0.005	0.01	6.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.08	1.08	< 0.005	< 0.005	< 0.005	1.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Onshore Demolition	Demolition	5/4/2024	9/12/2024	5.00	94.0	Mobilization and demo of onshore facilities
Grading for Restoration	Grading	8/17/2024	9/12/2024	5.00	19.0	Site contouring

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Onshore Demolition	Excavators	Diesel	Average	1.00	8.00	33.0	0.73
Onshore Demolition	Off-Highway Trucks	Diesel	Average	1.00	8.00	36.0	0.38
Onshore Demolition	Forklifts	Diesel	Average	2.00	8.00	367	0.40
Grading for Restoration	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading for Restoration	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading for Restoration	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading for Restoration	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading for Restoration	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Onshore Demolition	Tractors/Loaders/Backh	Diesel	Average	3.00	8.00	84.0	0.37
Onshore Demolition	Other Material Handling Equipment	Diesel	Average	2.00	8.00	93.0	0.40
Onshore Demolition	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Onshore Demolition	Dumpers/Tenders	Diesel	Average	2.00	8.00	16.0	0.38
Onshore Demolition	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Onshore Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Onshore Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Onshore Demolition	—	—	—	—
Onshore Demolition	Worker	45.0	8.80	LDA,LDT1,LDT2
Onshore Demolition	Vendor	—	5.30	HHDT,MHDT
Onshore Demolition	Hauling	6.70	20.0	HHDT
Onshore Demolition	Onsite truck	—	—	HHDT
Grading for Restoration	—	—	—	—
Grading for Restoration	Worker	20.0	8.80	LDA,LDT1,LDT2
Grading for Restoration	Vendor	—	5.30	HHDT,MHDT
Grading for Restoration	Hauling	0.00	20.0	HHDT
Grading for Restoration	Onsite truck	—	—	HHDT

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	10.1	annual days of extreme heat
Extreme Precipitation	6.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	16.8	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Appendix C

Project Site Biological Study

Kevin Merk Associates, LLC P.O. Box 318, San Luis Obispo, CA 93406 805-748-5837(o)/439-1616(f)

May 13, 2015

Ms. Uliana Micovic
InterAct
4567 Telephone Road
Ventura, CA 93003

Subject: Biological Assessment Addendum for the Venoco Ellwood Marine Terminal Decommissioning Project, Santa Barbara County, California

Dear Ms. Micovic:

Kevin Merk Associates, LLC (KMA) at your request, is providing this Biological Assessment Addendum (Addendum) to the 2014 Biological Assessment (InterAct, Rindlaub and VJS Biological Consulting) prepared for the Venoco Ellwood Marine Terminal (EMT) Decommissioning Project in Santa Barbara County, California. The approximately 17-acre site is located in the western portion of the University of California, Santa Barbara (UCSB) North Campus, and is bounded by the UCSB South Parcel to the north, the Coal Oil Point Reserve (COPR) to the south, and by undeveloped property in the City of Goleta's jurisdiction to the west. The Addendum covers portions of the loading line removal area and access road not previously surveyed. Please refer to Figures 1 and 2 for site location and aerial overview maps.

The purpose of the Addendum is to provide supplemental information to address full removal of the loading line on the beach as requested by the County of Santa Barbara (County) in a letter to Venoco dated January 21, 2015. In a September 24, 2014 letter to Venoco, UCSB included photos taken in March 2014 showing the beach and tidal portions of the loading line exposed by large storm and swell events. Subsequently, a study area was developed in consultation with you and Venoco representatives to include the sandy beach and intertidal area and future access road that may be affected during decommissioning activities of the loading line. This Addendum addresses the proposed removal of the beach and surf zone portion of the EMT loading line consistent with Alternative B included as Attachment A of the Decommissioning Plan. It also includes the potential use of the existing access road to the west of the loading line route during decommissioning activities. Under Alternative B, loading line removal would occur to a depth of -15 Feet Sea Water (FSW) from Mean Lower Low Water (MLLW), ensuring that the remaining portion of the line would not be exposed at low tide.

The following details the methods and results of the investigation.

METHODS

KMA conducted a review of available background information including historic photographs and previous biological studies conducted in the region. The following background documents were reviewed during this investigation:

- 2011 Final Environmental Impact Report for the Venoco Ellwood Marine Lease Renewal Project (Marine Research Specialists and Science Applications International Corporation)
- 2012 Mitigated Negative Declaration for the Venoco Platform Holly Power Cable Replacement Project (California State Lands Commission)
- 2014 Venoco Ellwood Marine Terminal Abandonment Project Delineation of Waters of the U.S. and State of California (Kevin Merk Associates)
- 2014 Biological Assessment, Ellwood Marine Terminal Decommissioning (InterAct)

As part of the background review, the California Natural Diversity Database (CNDDB, April 2015) maintained by the California Department of Fish and Wildlife (CDFW) was reviewed for documented special status resources within a one-mile radius of the property. This search distance was sufficient to identify those special status species and plant communities with potential to occur in the immediate vicinity of the study area. The database was used to evaluate nearby documented occurrences of special-status plant and wildlife and compare the recorded habitat attributes with those present onsite to make a determination if a particular species was expected to occur onsite.

The Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed to determine the soil mapping units present within the study area (U.S. Department of Agriculture 2015). The U. S. Fish and Wildlife Service's online National Wetland Inventory and Critical Habitat Mappers (http://www.fws.gov/wetlands/Data/Mapper.html; http://criticalhabitat.fws.gov/crithab/) were also reviewed to evaluate the extent of documented wetlands and designated critical habitat defined in the region.

For the purpose of this report, special status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (ESA); those listed or proposed for listing as Rare, Threatened, or Endangered by the California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFW; and plants occurring on California Rare Plant Rank lists 1, 2, 3 and 4 developed by the CDFW working in concert with the California Native Plant Society. The specific code definitions are as follows:

- *List 1A = Plants presumed extinct in California;*
- *List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);*
- *List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);*
- *List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);*
- *List 2 = Rare, threatened or endangered in California, but more common elsewhere;*
- *List 3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA); and*

- *List 4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened).*
- *List 4.3= Plants of limited distribution (watch list), not very endangered in California.*

In addition, sensitive natural communities are those listed in the CNDDB (California Department of Fish and Wildlife 2003 queried in April 2015).

KMA Senior Biologist Robert Sloan conducted an on-site investigation of the beach and access road areas on April 17, 2015. Weather was generally clear with light winds out of the west, and temperature was approximately 70 degrees Fahrenheit. The entire study area was walked, and existing plant communities were mapped on an aerial photograph obtained from Bing Aerial Maps. Vegetation classification generally followed Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) and was cross-referenced with *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009) for consistency. Plant taxonomy followed the *Jepson Manual, Second Edition* (Baldwin et al., 2012).

The evaluation of special status animal species and identification of habitat that could support these species was based on our field observations, knowledge of the particular species biology, and review of documented records included in the CNDDB. Definitive surveys for the presence or absence of the wildlife species that may be present were not conducted. Definitive surveys for special status plants to determine the presence or absence of rare plants were conducted and the results are included herein. Wildlife species generally require specific survey protocols with extensive field survey time to be conducted only at certain times of the year.

RESULTS

The April 2015 assessment found site conditions to be generally unchanged from those described in the 2014 Biological Assessment (InterAct, Rindlaub and VJS Biological Consulting), and those observed during field work conducted for the 2014 Delineation of Waters of the U.S. and State of California (KMA). Extending the study area to include the access road to the west of the loading line and sandy beach/intertidal area identified three common plant species, lemonade berry (*Rhus integrifolia*), beach bur-sage (*Ambrosia chamissonis*), and sea rocket (*Cakile maritima*) that were not included on the 2014 Assessment Species List. The 2015 CNDDB search did not identify any new sensitive or special status plant species that were not already addressed in the 2014 Biological Assessment. However, since the study area was enlarged to include the sandy beach and intertidal area, three additional special status animal species were identified from the general area, and included white and black abalone (*Haliotis sorenseni* and *H. cracherodii*) and California Grunion (*Leuresthes tenuis*).

A series of maps are provided as attachments to this report. Figure 1 is a site location map, and Figure 2 is an aerial overview map to show the site in its geographic context. Figure 3, the habitat map, documents observed habitat conditions within the Addendum study area, and Figure 4, the CNDDB occurrence map, illustrates the recorded or known occurrences of special status biological resources and federal critical habitat from the project vicinity. Photos of notable features were taken, and a photo plate is also included as an attachment to this report. Below provides further detail of the biological resources observed within the Addendum study area. Also included are

impact statements for special status resources that may be affected by the project and were not included in the 2014 Biological Assessment. For potentially significant impacts, a suite of mitigation measures to reduce project related impacts to a less than significant level pursuant to the California Environmental Quality Act are also provided.

Beach Portion of Loading Line

The loading line formerly used to transport crude oil onshore to the storage tanks extends aboveground approximately 700 feet from the southern boundary of the EMT property southwest to the bluff face, and down onto the active beach area. At the time of the April survey, the 10-inch diameter loading line section crossing the beach was buried in beach sands near the bluff face (refer to photos 1-4). A portion of a concrete support structure was visible above beach sand deposits approximately 25 feet from the bluff face. Offshore portions beyond the surf zone were assumed to be partially or shallowly buried in the predominately sandy sea floor based on visual observations made from the bluff and intertidal area.

As discussed in the 2014 Biological Assessment, the dominant vegetation present on the bluffs above the loading line consisted of non-native iceplant (*Carpobrotus* spp.). This invasive species was being removed by UCSB through a solarization process, and large areas of iceplant on both sides of the loading line were covered by black plastic anchored with sand bags (refer to Photo 3).

The bluff face was mostly vertical and subject to continuing erosion, and was unvegetated except for scattered occurrences of sea rocket at the sandy toe, with several plants extending onto the sandy beach area below the bluffs. The remaining sandy beach areas to the high tide line were unvegetated. The sandy beach and bluff face around the loading line was within the northern end of the Sensitive Species Exclusion Zone for the federal threatened western snowy plover (*Charadrius alexandrinus nivosus*) and federal and state endangered California least tern (*Sternula antillarum*) breeding habitat associated with the Coal Oil Point Reserve (COPR). The 2014 Biological Assessment identified adequate avoidance and mitigation measures for both species. Any work on the bluff face or beach area adjacent to the loading line would be subject to the avoidance measures that limit construction activities and prohibit access to breeding habitat from March to September.

Beach Access Road

The existing beach access road is an extension of the paved access road to the EMT, and consisted of a dirt road/pathway used for recreational beach access. Remnants of pavement were present along the gently sloping upper portion, while the relatively steep lower portion were composed of bare dirt, changing to dune and beach sands at the southwestern end (refer to photos 5-8). The access road was dominated by large eucalyptus trees along the northern portion, and by native shrubs and annual grasses and forbs extending to the beach. A small clump of arroyo willow (*Salix lasiolepis*) and several lemonade berry shrubs were present on the western side of the road, and a large area dominated by coyote brush (*Baccharis pilularis*), coast goldenbush *(Isocoma menziesii* ssp. *vernonioides)*, and saltbush (*Atriplex* spp.), was present along the eastern edge. Areas of restored habitat with drip irrigation lines were present on the eastern side of the road near the beach. Road/pathway edges were mostly dominated by non-native annual grasses, and by iceplant near the beach. The beach access road is located adjacent to but outside the Sensitive Species Exclusion

Zone.

Habitat Types

Natural habitat types within and adjacent to the beach portion of the loading line and the access road consisted of Venturan Coastal Sage Scrub, Southern Coastal Bluff Scrub, Southern Foredunes, and Sandy Beach areas. Non-native habitats included Eucalyptus Windrow, and Ruderal/Disturbed areas along the beach access road. The 2014 Assessment discussed Venturan Coastal Sage Scrub, Southern Coastal Bluff Scrub, and Southern Foredunes habitat characteristics and species associations, and subsequently evaluated potential project related impacts to these resources and provided adequate mitigation.

Small, degraded areas of Southern Coastal Bluff Scrub dominated by iceplant were present along the lower portion of the beach access road, and on the bluff top adjacent to the loading line route. Small areas of Southern Foredunes habitat were present at the bluff edge between Sandy Beach and Southern Coastal Bluff Scrub habitats along the loading line route, with larger areas present at the lower portion of the access road. Sandy Beach, Eucalyptus Windrow, and Ruderal/Disturbed habitat types are discussed below.

Sandy Beach

Sandy beach habitat is classified as marine, intertidal, unconsolidated shore, consisting of regularly flooded sand (Cowardin et al. 1979). This habitat is characterized by sandy substrate lacking vegetation except for occasional pioneering plants such as silver beachweed (*Ambrosia chamissonis*), and sea rocket (*Cakile maritima*). Common shorebirds including long-billed curlew (*Numenius americanus*), sanderling (*Calidris alba*), willet (*Catoptrophorus semipalmatus*), and California brown pelican (*Pelecanus occidentalis californicus*) frequently forage on sandy beach habitats. Sandy beaches provide habitat for a variety of macro-invertebrates that are an important food source for shorebirds, including sand crabs (*Emerita analoga*), isopods (*Excirolana chiltoni* and *Tylos punctata*), and several species of polychaete worms (*Euzonus mucronata*, *Excirolana chiltoni*, and *Hemipodus borealis*). As discussed in the 2014 Biological Assessment, beach areas adjacent to the loading line provide seasonal breeding habitat for the western snowy plover and least tern, and are subject to seasonal closure during breeding season.

The sandy beach intertidal zone in the project area appears to grade into permanently wetted soft-bottom subtidal habitat below the MLLW. Soft bottom areas support benthic (bottom dwelling) organisms including eels, bottom dwelling fish such as flatfish or leopard sharks (*Triakis semifasciata*), and invertebrates including polychaetes, nematodes and crabs. Organisms which dwell in soft bottom subtidal habitats tend to either bury themselves for protection, or are highly mobile and able to swim quickly away from disturbances. Observations from the bluff top at low tide did not distinguish any occurrences of kelp or other indications of rocky structure along the loading line route through the nearshore portion of the subtidal zone.

Eucalyptus Windrow

Eucalyptus windrows typically consist of a densely planted line of blue gum eucalyptus (*Eucalyptus globulus*), a fast-growing tree imported from Australia. Stands of blue gum eucalyptus may reach

150 feet tall, towering over other species native to the area. The build-up of eucalyptus bark and leaf matter, dense shade created by the eucalyptus canopy, and allelopathic chemicals produced by the bark and leaf matter severely limit the growth of understory vegetation. Blue gum eucalyptus is considered an invasive plant, and the California Invasive Plant Council lists blue gum eucalyptus as invasive along the coast. Eucalyptus windrow composed of mature eucalyptus trees is present along the western edge of the beach access road. While not documented from the project site, the eucalyptus occurrences in the area are known to support Monarch butterfly (*Danaus plexippus*) autumnal and overwintering sites. Eucalyptus trees in the area could also support nesting raptors such as the white-tailed kite (*Elanus leucurus*). No active nest sites or bird nesting behavior was noted in the eucalyptus windrow within the study area during the site visit conducted in April 2015.

Ruderal/Disturbed

Ruderal/Disturbed habitat is not a native plant community, and is not described by vegetation classification systems since it is an anthropogenic influenced land type. Ruderal vegetation typically occurs on heavily used and/or frequently disturbed sites, and includes species that are especially successful as colonizers. Areas along the access road west of the EMT leading to the beach support ruderal vegetation as the result of continual disturbance by vehicles, joggers, and beachgoers. Typical ruderal species are primarily non-natives, such as cheese-weed (*Malva parviflora*), Italian thistle (*Carduus pycnocephalus*), mustards (*Brassica nigra, Hirschfeldia incana*), wild radish (*Raphanus sativus*), milk thistle (*Silybum marianum*), bur clover (*Medicago polymorpha*), and the native telegraph weed (*Heterotheca grandiflora*).

Because of the disturbed and fragmented nature of this habitat, it is of marginal value to wildlife. Nonetheless, proximity to natural plant communities allow common species such as the western fence lizard (*Sceloporus occidentalis*) and California ground squirrel (*Spermophilus beecheyi*) to utilize ruderal areas for basking in the sun and foraging.

Special Status Biological Resources

The 2014 Assessment discussed numerous special status plant and animal resources documented by the CNDDB as potentially present within the project area. While the study area shown on the habitat maps included in the document did not extend to the active sandy beach, the analysis covered the Southern Foredunes /Sandy Beach habitat zones. As such, special status species evaluated in the 2014 Biological Assessment included the southern tar plant (*Centromadia parryi* ssp. *australis*), snowy plover, Least tern, California legless lizard (*Anniella pulchra*), globose dune beetle (*Coelus globusus*), Monarch butterfly, and nesting raptors. Adequate avoidance and mitigation measures were included to ensure the proposed project does not result in significant impacts pursuant to CEQA.

The survey conducted for this 2015 Addendum included a larger area consisting of the beach access road and sandy beach/intertidal areas for special status plant species known from the immediate vicinity, with negative results. The beach access road areas did not provide suitable habitat for the Southern tarplant, and no individuals were observed. The CNDDB search identified three wildlife species not addressed in the 2014 Assessment that could potentially be present in the intertidal study area to a depth of approximately 15 feet below the MLLW line. These species include:

- white abalone (*Haliotis sorenseni*);
- black abalone (*H. cracherodii*); and
- California grunion (*Leuresthes tenuis*).

White and Black Abalone

The white and black abalone are herbivorous gastropods (the same taxonomic class as snails and slugs) that live in rocky ocean waters. Historically, white abalone were found from Point Conception, California, to Punta Abreojos, Mexico, while black abalone ranged from Point Arena, California to Bahia Tortugas and Isla Guadalupe, Mexico. The white abalone was listed as an endangered species on May 29, 2001, and black abalone was listed as endangered on January 14, 2009.

Abalone reproduce by releasing their eggs and sperm into the surrounding water, known as broadcast spawning. Like many gastropods, abalone have a complex life cycle involving larval stages. Fertilized eggs hatch into larvae. The larvae eventually change into the adult form and settle from plankton to a hard substrate in the inter- or subtidal zone. These marine gastropods are typically associated with crevices, cracks, and holes of intertidal and shallow subtidal rocks, in areas of moderate to high surf. Sand channels within the rocky areas may be important for the movement and concentration of drift macroalgae, red algae, and other food sources.

Due to the dominant sandy substrate and lack of rocky intertidal and subtidal habitat, white and black abalone are not expected to be present within the project area due to unsuitable habitat conditions. Therefore, they would not be expected to be impacted by decommissioning activities occurring on the sandy beach extending in the sandy intertidal area.

California Grunion

The California grunion is a small fish in the silversides family that inhabits the nearshore waters from the surf to a depth of approximately 60 feet. Their usual range extends from Point Conception, California, to Point Abreojos, Baja California. Occasionally, they are found farther north, to Monterey Bay, California, and south to San Juanico Bay, Baja California. Grunion spawn on sandy beaches immediately following spring tides (high tides that occur during the full and new moons) from March to August. The peak grunion spawning season occurs between April and May. The eggs are incubated in the sand until the following series of spring tide conditions, approximately 10 to 15 days, when the eggs hatch and are washed into the sea. California grunion is a species of concern due to its unique spawning behavior.

According to CDFW, all California beaches are potential grunion spawning habitat. Goleta Beach located south of COPR has been documented to provide spawning habitat for the California grunion, and conditions within the project area appear suitable for spawning activity due to limited human access and lack of light sources. Therefore, project activities occurring on the sandy beach and within the intertidal zone could potentially impact California grunion.

IMPACT ANALYSIS AND RECOMMENDED MITIGATION MEASURES

As stated above, the 2014 Biological Assessment provided mitigation measures for special status biological resources, including habitats (i.e.: wetlands and native grassland), native coast live oak trees, and plants and animals. The following species known or potentially present within the extended project area were also evaluated and appropriate avoidance and mitigation measures provided: southern tar plant, snowy plover, Least tern, legless lizard, globose dune beetle, Monarch butterfly, and nesting raptors. These mitigation measures are incorporated into this amendment by reference, and shall be included as project requirements for all work within the extended study area. Impact discussions and additional mitigation measures for work in the intertidal zone, and for use of the beach access road are included below.

Impact 1: Disturbance to Intertidal Organisms during Loading Line Removal

Potential Impact: Class II

The Project would require operation of heavy construction equipment including tractors, a small boom crane or loader, jetting equipment, and truck/trailer rigs on the beach to excavate, cut, pull, and remove the beach and intertidal portions of the loading line. Disturbance of beach sands and sediment during excavation and jetting of sand around the line, cutting and pulling the sections to be removed from sandy beach and intertidal areas, and transporting them from the site have potential to disturb and kill intertidal invertebrates, and might dislodge or crush grunion eggs if spawning activity occurs in the project area.

Proposed activities would kill an unknown number of intertidal invertebrates living in the sand under and around the loading line and in adjacent areas used for equipment for access and removal efforts. The amount of sandy beach and intertidal habitat affected by these construction activities would be small (less than 0.5 acre), and the disturbance period would be short. Intertidal invertebrate communities are adapted to the seasonal shifting of sand off and on the beach and typically repopulate disturbed areas quickly.

Because of the small amount of beach and intertidal habitat that would be affected and the short project timeframe, impacts to invertebrate species would be considered less than significant, and no mitigation measures are proposed.

If removal efforts occur between March and September, compaction, excavation, or jetting of sand would potentially crush or expose California grunion eggs deposited in the high intertidal zone. Because grunion populations are declining and the beaches where they spawn are limited, destruction of grunion eggs would result in a temporary loss of the functional value of the beach as grunion spawning habitat. The following mitigation measure would reduce the potential impact to grunion eggs to an insignificant level.

Mitigation Measure 1: Avoid sand disturbance below the high tide line if grunion spawning activity occurs within the project area.

- Project activities that require equipment access seaward of the high tide line shall be scheduled to avoid anticipated California grunion runs. If such work is proposed during the seasonally predicted run and egg incubation period for California grunion as identified by the California Department of Fish and Wildlife (typically March 1-August 31), a qualified Biological Monitor(s) shall be retained to document run activity prior to any sand disturbance within the high tide line.
- Grunion monitoring shall be conducted each night for 30 minutes prior to and two hours following the predicted start times for each four-day spawning period. If grunion are observed spawning within the work area, the presence of egg nests can be assumed and surveys on subsequent nights are not required. Sufficient personnel shall be utilized to ensure that all tidal beach sections proposed for use by the project are monitored during the specified period.
- If adult grunion are observed within the Project site, no construction activities requiring equipment access below the high tide line within 100 feet of the observed location(s) will be allowed. Work may not occur until after the next predicted grunion run in which no adult grunion have been observed on the site, or two weeks after the last predicted run date in August.
- If grunion spawning is not observed within the work area on all four nights of a predicted run series, then the absence of egg nests and incubation activity in the work area can be assumed and, if needed, project activity that entails sand disturbance can be conducted seaward of the high tide line up to and including the day before the date of the next predicted run.

Monitoring of grunion spawning and avoiding disturbance to any areas where spawning occurred would avoid impacts to grunion eggs. The potential for destruction of grunion eggs would be considered less than significant with the incorporation of the above mitigation. Furthermore, mitigation measures intended to avoid and reduce impacts other resources, such as the seasonal work restrictions for snowy plover, would also help avoid impacts to Grunion.

Impact 2: Sediment disturbance and suspension could impact intertidal marine organisms

Potential Impact: Class III

Excavation and jetting in the intertidal zone would disturb sediment that could become suspended in near-shore waters. Suspended sediment may have a number of adverse effects on marine organisms. Sand can interfere with the appendages of filter feeding invertebrates, clog respiratory appendages of invertebrates, and change movement patterns of fish. Suspended sediments may increase turbidity over the short term and could interfere with the foraging activities of visual predators including fishes, marine mammals, and seabirds such as California brown pelicans and California least terns.

Abalone and filter feeding species typically occur on the seafloor in rocky areas, and are not expected to occur in the soft bottom areas affected by loading line removal activities. Similarly, the

tidal pipeline removal would not be expected to significantly affect sensitive fish, bird, and mammal species known from the area due to lack of habitat and their ability to move away from project disturbance.

Sediment plumes generated in the water column during line removal are expected to be small and of short duration. The predominantly sandy sediments tend to settle quickly, and do not generate large or long-lasting sediment plumes. Due to the small area of disturbance and the short project timeframe, these sediments would be expected to settle rapidly and would not create extensive turbidity plumes. In addition, because the disturbance would occur in the intertidal surf zone and shallow subtidal zones that typically are subjected to continuing sediment suspension from wave action, the potential impact to marine organisms is considered insignificant.
No mitigation is required.

Impact 3: Erosion and habitat disturbance could result from Beach Access Road use

Potential Impact: Class II

Project access by trucks, trailers, tractors, and other necessary equipment along the beach access road could cause or create erosion control issues on steep road sections near the beach, and remove remnant native habitat. Grading of the lower portions of the road would be necessary to create a stable road surface that is wide enough for equipment travel. Grading and repeat vehicle travel would reduce existing plant cover and disturb soils on and adjacent to the existing roadway, thereby increasing the potential for erosion to occur.

The EMT Demolition Plan states that the beach removal effort would occur outside the March-September plover exclusion period, indicating that work would occur either during or immediately before the start of the rainy season. In order to reduce erosion potential during and following construction, implementation of temporary and permanent erosion control measures, preparation of site-specific restoration plans, reestablishment of vegetative cover in disturbed areas, and installation of erosion control structures where necessary will be required. A site restoration plan has been prepared and was evaluated in the 2014 Biological Assessment. To reduce potentially significant impacts associated with habitat disturbance, the following mitigation measure shall be required.

Mitigation Measure 2: Prepare and implement a SWPPP to address Beach Access Road use.

- Prior to use of the beach access road, Venoco shall prepare a Stormwater Pollution Prevention Plan (SWPPP) to address specific issues associated with use of the road. Provisions of this plan shall be implemented during and after construction as necessary to avoid and minimize erosion and native habitat loss in and near the work area. Permanent erosion control measures must coordinate with and complement the EMT Restoration Plan goals and COPR requirements.
- During construction, an effective combination of temporary erosion control measures shall be installed along all disturbed beach access road areas per the approved SWPPP. At a minimum, protective measures will be checked and maintained on a daily basis throughout the construction period.

- Following construction, to control erosion after project completion, Venoco will implement permanent measures per the approved SWPPP consistent with the approved Restoration Plan for the project.

Implementation of the approved SWPPP and Restoration Plan requirements would reduce the potential for erosion and habitat loss resulting from beach access road use during and following project activities. Potential impacts would be considered less than significant with the incorporation of the above mitigation.

CONCLUSION

The Biological Assessment Addendum analyzed an enlarged study area not previously included in the 2014 Biological Assessment prepared for the project. While no special status plants were identified within the Addendum study area, the 2014 Biological Assessment provided adequate mitigation for identified impacts and was incorporated by reference. Inclusion of the sandy beach and intertidal area in this Addendum identified the potential for California grunion to occur within the study area. Appropriate mitigation was included to reduce potential impacts to California grunion resulting from the project to a less than significant level pursuant to CEQA. Therefore, the project as proposed would not be expected to have significant impacts on special status biological resources with the incorporation of mitigation measures identified herein and in the 2014 Biological Assessment.

As discussed in the 2014 Biological Assessment, the purpose of decommissioning the EMT is to return the site as closely as possible to pre-lease conditions, and the end results are anticipated to be beneficial to the surrounding Ellwood-Devereux Slough and sandy beach ecosystems. The additional impacts identified in this Addendum are either not significant, or, if potentially significant, can be mitigated to a less than significant level. Completion of the decommissioning project will allow restoration of the EMT property to proceed in conjunction with the ongoing South Parcel restoration process, resulting in significant improvements in native habitat coverage and wildlife opportunities on site and in surrounding areas.

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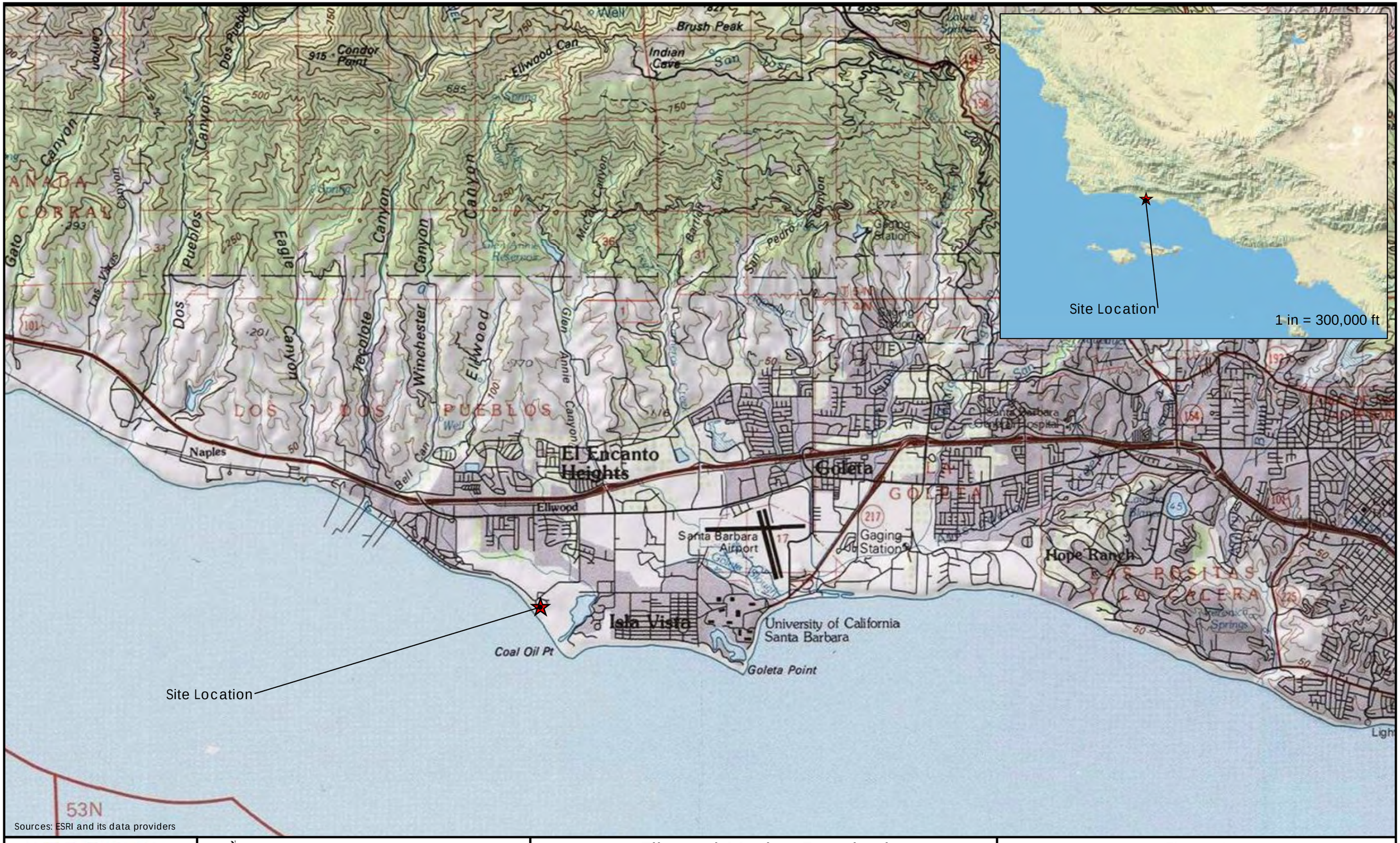
Thank you for the opportunity to provide environmental consulting services for this project. If you have any questions regarding the information contained herein, please contact me at the phone number listed above or via email at kmerk@kevinmerkassociates.com.

Sincerely,
KEVIN MERK ASSOCIATES, LLC

Kevin B. Merk
Principal Biologist

Robert Sloan
Senior Biologist

Attachments: *Figure 1 – Site Location Map*
Figure 2 – Aerial Overview Map
Figure 3 – Habitat Map
Figure 4 – CNDDB Map
Photo Plate



Sources: ESRI and its data providers

KMA KEVIN MERK ASSOCIATES	N W E S	1 inch = 5,000 feet	Ellwood Marine Terminal Venoco, Inc.	Figure 1 Site Location

KMA
KEVIN MERK ASSOCIATES

N
W E
S

0 25 50 100 150 200 250 Meters
1 inch = 500 feet

Ellwood Marine Terminal
Venoco, Inc.

Figure 2
Aerial Overview Map

KEVIN MERK ASSOCIATES

N W E S

0 25 50 100 Meters

1 inch = 200 feet

Ellwood Marine Terminal

Venoco, Inc.

Figure 3

Habitat Map

2015 Biological Assessment Addendum Study Area
1 Mile Study Area Buffer
USGS 7.5' Quad
Western Snowy Plover Critical Habitat

Common Name

Contra Costa Goldfields
Santa Barbara honeysuckle
black-flowered figwort
globose dune beetle
monarch - California overwintering population
sandy beach tiger beetle
southern tarplant
tidewater goby
western pond turtle
western snowy plover

USGS QUAD DOS PUEBLOS CANYON

USGS QUAD GOLETA

Sources: ESRI and its data providers; CDFW CNDDB (Aril 2015); USGS Quad 7.5'

KEVIN MERK ASSOCIATES

N W E S

0 400 800 1,600 2,400 3,200 Meters

1 inch = 2,000 feet

Ellwood Marine Terminal

Venoco, Inc.

Figure 4

CNDDB

Photo Plate

Photo 1. View of the exposed portion of the Loading Line at the bluff face, looking inland from the Sensitive Species Exclusion Zone boundary. Note iceplant on bluff top, and sparse cover of sea rocket at toe of bluff face. Black plastic is being used to kill iceplant.

Photo 2. View of the Loading Line at the bluff face, looking southwest. The fence in the foreground and white sign at the high tide line marks the Sensitive Species Exclusion Zone boundaries. Note concrete pipeline support exposed on beach inside the exclusion zone.

Photo 3. View of the Loading Line at bend, looking southwest over iceplant dominated bluff scrub habitat. Note black plastic used to kill iceplant by solarization as part of ongoing habitat restoration efforts on the South Parcel.

Photo 4. View of Sensitive Species Exclusion Zone signage and fencing, looking southerly toward the exposed portion of the Loading Line at the bluff face.

Photo 5. View of the access road from the beach, looking east-northeast. The Sensitive Species Exclusion Zone boundary is located to the south of this access road.

Photo 6. View of the lower and middle portions of the access road, looking northeast. Note solarization with black plastic in progress at left, and restored habitat on slope at right side of picture. The eucalyptus windrow is visible in the background.

Photo 7. View of the upper portion of the access road, looking northeast. Note mostly native habitat consisting of shrubs and trees, and eucalyptus windrow in background.

Photo 8. View of the upper portion of the access road, looking east. Note irrigation lines for ongoing restoration efforts along right side of the road and eucalyptus to the left.